THE EFFECT OF BOARD CHARACTERISTICS ON THE FINANCIAL PERFORMANCE OF FIRMS LISTED IN THE MANUFACTURING AND ALLIED SECTOR OF THE NAIROBI SECURITIES EXCHANGE

BY

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DECLARATION

This research project is my original work and has not been submitted for an award of degree, diploma or certificate at any university or college.

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Supervisor's Approval

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

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ABSTRACT

Corporate boards oversee executive decision making and proffer tactical and strategic advantages to firms. The relationship between board characteristics and firm financial performance has been widely studied with the aim of establishing the board characteristics that significantly affect financial performance. This study investigated the effect of board characteristics variables of board size, board independence, board diversity, board compensation, CEO duality and audit committees on financial performance, as measured by return on assets, return on equity and Tobin's Q.

The study is based on the manufacturing and allied sector of the Nairobi Stock Exchange for the period 2009 to 2012. Secondary data was collected from the publicly available annual reports and financial statements of the companies, with further corporate governance and market performance data gathered from Capital Markets Authority library and Nairobi Stock Exchange website respectively. Regression analysis, correlation analysis and descriptive statistics were used to analyze the data collected using statistical package for social sciences (SPSS).

The study found that board independence has a significant negative correlation with financial performance as measured by Return of Equity, Return on Assets and Tobin's Q. Board diversity was also found to have a significant positive effect on financial performance as measured by Tobin's Q. However, Board size, board compensation, CEO duality and Audit committee were found not to have a significant relationship with financial performance.

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ABBREVIATIONS

AC	Audit Committee
BOD	Board of Directors
CEO	Chief Executive Officer
CG	Corporate Governance
CMA	Capital Markets Authority
EPS	Earnings per Share
GDP	Gross Domestic Product
ICGN	International Corporate Governance Network
KCGT	Kenya Corporate Governance Trust
NSE	Nairobi Securities Exchange
OECD	Organization for Economic Cooperation and Development
RET	Stock Market Return
ROA	Return on Assets
ROE	Return on Equity
SOX	Sarbanes-Oxley Act
SPSS	Statistical Package for Social Science

CHAPTER ONE

INTRODUCTION

1.1 Background of Study

The internationalization and globalization of world markets has fundamentally changed how companies conduct business. The contemporary business environment is characterized by uncertainty and risk, making it increasingly difficult to forecast and control the tangible and intangible factors which influence firm performance (Kuratko & Morris, 2003). In response to the external pressures, firms resort to different strategic responses such as restructuring, downsizing, business process reengineering, benchmarking, total quality management, management by objectives etc., to improve and sustain their competitive positions (Mangenelli & Klein, 1994).

To be able to succeed in the turbulent business environment, and implement the above strategies, most companies have embraced good corporate governance (CG) practices as there is consensus that well-governed firms largely perform better. The Asian financial crisis in 1997, the global financial crisis in 2008 and the seemingly poor performance of the corporate sector in Africa has given impetus to the implementation of CG practices in most African countries (Berglof and Von Thadden, 1999).

Many organizations including International Corporate Governance Network (ICGN) and the Organization for Economic Cooperation and Development (OECD) have since developed guidelines for CG. According to the OECD, CG involves a set of relationships between a company's management, its board, its shareholders and other stakeholders. CG also provides the structure through which the objectives of the

company are set, and the means of attaining them and monitoring performance are determined (OECD, 2004).

1.1.1 Corporate Board Characteristics

Berle and Means (1932) provided the theoretical underpinning for the extensive research in CG. Since their seminal work different theories have been propounded in explaining CG issues with stewardship theory, agency theory, resource dependency theory and transaction cost theory being the main theories (Daily, Dalton and Cannella, 2003).

Almost all the work in the area of CG starting with Adam Smith (1776), to the different theories, has highlighted the importance of corporate board of directors (BOD). Even though the primary purpose of strong CG is to increase shareholders' equity and to achieve sustainable economic growth, good CG must serve the interests of all stakeholders by assuring the implementation of adequate internal and external controls over the firm's operations (Aquila 2009).

BODs have long had the legal authority and shareholder encouragement to proactively oversee executive decision making. BODs with relevant knowledge, skills, and abilities have the potential for proffering unique tactical and strategic advantages to firms (Finkelstein and Hambrick, 1996). BODs contribute to a firm's success through three primary roles: the resource role wherein they enhance access to critical external resources, the service role in which they provide important advice to executive management, and the control role in which they provide governance, oversight and determine incentives for executive performance (Chatterjee and Harrison, 2005). It is in the third role that BODs have been ardently criticized for poor performance with cases of unfettered corporate malfeasance suggesting BOD ineptitude, high profile

executive compensation packages that have increased public outrage and motivated new government regulations (Grant and Grant, 2008).

There are several aspects of board characteristics; these include Chief Executive Officer (CEO) duality, BOD size, BOD independence, BOD diversity, BOD compensation, Audit Committee and many others (Finegold et al. 2007). CEO duality refers to a situation in which a corporate CEO also occupies the position of BOD chair while BOD size is the number of directors in the firm's board. BOD independence refers to the ratio of executive (non-independent) to non-executive (independent) directors in the BOD. BOD diversity is defined as the variation of the age, race, ethnicity, gender, and social/cultural identities among BOD members (Marimuthu, 2008). BOD compensation refers to the payments and or benefits paid to directors as consideration for serving as BOD members. The Audit Committee is a sub-committee of the BOD that aims to ensure the transparency and integrity of financial reports and internal controls thereby increasing investor confidence in the firm (Sarbanes-Oxley Act 2002).

1.1.2 Firm Financial Performance

Performance measurement is the process of collecting, analyzing and/or reporting information regarding performance of the firm and can be financial of non financial. Financial performance is vital to different stakeholders in a firm as they use the financial performance data to make important decisions. The primary source of financial performance data is financial statements. Financial performance assessment based on financial statements relies on past data and conditions from which it may be difficult to extrapolate future expectations; however it is one of the main sources of data for predicting future performance (Harrington & Wilson, 1989).

Financial performance measurement is crucial to evolution and control. The lack of quantifiable objective or performance standards and the inability of the information

system to provide timely and valid information are major control problems. Without objective and timely measurement, making operational, let alone strategic, decisions would be extremely difficult. Nevertheless use of timely, quantifiable standards does not guarantee adequate performance. The very act of monitoring and measuring performance may cause side effects that interfere with overall firm financial performance. Among the most frequent negative side effects are short-term orientation and goal displacement (Wheelen & Hunger, 1995).

Ratio analysis is one of the common traditional methods of analyzing financial statements. The ratios are normally compared over time to give insightful meaning by determining the underlying causes of the differences among them. The primary ratios used in analyzing financial statements can be classified as; liquidity ratios, asset management ratios, profitability ratios and market value ratios. These ratios can be combined to determine the rate of return for a company and its owners and the rate at which the company can grow sustainably. Reliance on financial accounting measures has been criticized (Harrington & Wilson, 1889). It has been argued that they are: subject to manipulation; may systematically undervalue assets; create certain distortions due to the nature of depreciation policies elected, inventory valuation and treatment of certain revenues and expenditure items; differ in methods adopted for consolidation of accounts; lack standardization in the handling of international accounting conventions (Chakravarthy,1986).

By adding data of company stock market performance to the financial stamen data, we can gain insight into how financial markets view the company's performance (Harrington & Wilson, 1889). Market based returns reflect risk adjusted performance and are not adversely affected by multi-national contexts (De Jong et al 2002)). However market based measures can be affected by forces beyond management's

control and market ineffectiveness in some markets (Hambrick and Finkelstein, 1995). Tobin's Q is susceptible to estimating errors since several crucial values used in its computation are subjective estimates that can vary by researcher (Barnhart, Marr, and Rosenstein, 1994).

Most researches addressing CG mechanisms and financial performance have relied on accounting or market-based indicators as well as a combination of both. Traditionally, financial performance measures are split into profitability ratios, liquidity ratios, gearing ratios and investor ratios. Research has resulted in the addition of stock market performance measures along with indicators of operating efficiency to assess performance (Pearce and Zahra, 1992).

Some authors argue that since the 1990s financial performance measurement has been undergoing a revolution (Eccles, 1991). Kaplan and Norton (1992) posit that efforts to revitalize manufacturing industries cannot succeed if outdated accounting and control systems remain unchanged, as such new performance measures have evolved. Joel Stern and Bennett Stewart, co-founders of consulting firm Stern Stewart & Company developed Market Value Added and Economic Value Added and are commonly used to measure financial performance (Bennet, 1991).

1.1.3 Relationship between Board Characteristics and Firm Financial Performance

The Combined Code on Corporate Governance (CCCG) (2003) states that, "Every company should be headed by an effective BOD, which is collectively responsible for the success of the company"**.** The BOD should be responsible for the company's values and strategic and entrepreneurial objectives and to control risk management, risk assessment, and management performance (Charkham, 2005).

However, there is still no consensus on the effect of BOD characteristics on financial performance due to divergent views of researchers. Yermack (1996) found an inverse relation between firm market value and the size of the board of directors. Eisenberg et al. (1998) found that companies with smaller boards had higher Return on Assets (ROA). Crutchley et al. (2002) found that a larger board in a poorly performing firm was associated with subsequent performance improvement, while having a larger board in a high performing firm slowed subsequent performance improvement. Having independent directors result in diversity and enhances the monitoring role and hence improve the quality of the BOD. Hayes and Lee (1997) found excess stock returns over the market as being significantly higher for companies with high quality BODs than for those with low quality BODs. Companies with good BODs also reported higher ROE and had higher price to book ratios.

The causal direction between director pay and company performance is not clear. Hempel and Fay (1994) found that outside director compensation was driven by board size and meeting frequency and not firm performance, while Boyd (1994) found firm profitability significantly predicted board compensation. Cordiero, Veliyath and Erasmus (2000) found firm performance to be positively correlated with director compensation and that high company growth leads to greater stock compensation. Mishra and Nielsen (2000) found that pay-for-performance was a better predictor of financial performance when there were fewer or shorter tenured independent outside directors.

Evolving cultural, political, and societal views of BOD membership and the global desire for better CG practices are some of the factors credited with increased interest in the demographic diversity in BODs. A large number of researches on BOD diversity are either anchored to the resource dependency theory or they are theory neutral. Using

resource dependency theory, Carter, Simkins, and Simpson (2003) found diversity to be positively related to firm performance, a finding supported by Roberson and Park (2007).

The perception of how CEO duality influences a firm's performance varies by the theoretic certitude of the researcher, with stewardship theorists generally being proponents of duality, while agency theorists are opponents and most research outcomes suggest that CEO duality is not an area of prime concern for resource dependency theorists. Based on Stewardship theory Donaldson and Davis (1991) found that duality enhanced shareholder wealth and improved a series of financial ratios. The movement in the US for improved CG following governance failures and a heightened awareness of the importance of corporate governance produced the Sarbanes-Oxley Act of 2002 (SOX). Audit committees were one of the main recommendations of SOX and it plays a crucial role in protecting the interests of shareholders and other stakeholders. In fact, its effectiveness is dependent on its characteristics that relate primarily to the independence of its members, the size of the committee, the frequency of meetings and the expertise of the members of the audit committee (Bouaziz, 2012).

The development of corporate governance codes of best practice in Kenya is done by Private Sector Corporate Governance Trust. The Capital Markets Authority (CMA) is charged with the oversight role of formulating and implementing rules and regulations for players in the capital market. The Company Act is silent on board size but sets a minimum of two directors. The Global Competitiveness Report 2012-2013 indicated that Kenya's competitive ranking plummeted due to poor scores in key areas such as ethical behavior of firms, strength of investor protection, integrity of auditing and reporting standards and the protection of minority shareholders (Mugwe, 2012).

1.1.4 Manufacturing and Allied Sector of Nairobi Securities Exchange

The Nairobi Securities Exchange (formerly known as Nairobi Stock Exchange) was formed in 1954 as a voluntary association of stockbrokers in the European community registered under Kenya's Societies Act. Currently the Nairobi Securities Exchange (NSE) comprises of 61 listed companies as at December 2012. The other market players in the NSE include stockbrokers, investors and regulatory authorities (NSE Website, 2012).

The 61 listed firms are classified into ten sectors that exhibit similar products and/or similar markets. The sectors also have unique characteristics and risk profiles. The NSE sectors include; Agricultural, Commercial and Services, Telecommunication and Technology, Automobiles and Accessories, Banking, Insurance, Investment, Manufacturing and Allied, Construction and Allied, and Energy and Petroleum. An additional sector, Growth Enterprise Market Segment, was introduced in 2013. The Manufacturing and Allied Sector of the NSE comprises of nine listed firms involved in manufacturing and related business activities.

1.2 Research Problem

Resource Dependence Theory has been the primary foundation for perspectives that large boards will be associated with higher levels of firm performance, with BOD size considered as a measure of an organizations ability to form environmental links to secure critical resources (Goodstein et al, 1994). Effective BODs enable the identification, explication, and mitigation of contractual hazards leading to efficient accomplishment of transactions by firms hence improved financial performance, as explained by Transaction Cost Theory (Wieland 2005). Agency Theory predicts that compensation policy will tie the agent's expected utility to the principal's objectives of

wealth maximization and thus CEO compensation policies will depend on changes in shareholder wealth.

Yermarck (1996) found a negative relation between board size and financial performance. Fama and Jensen (1983) suggest that board independence may harm firm performance while Peng (2004) found that increasing the percentage of independent directors had no impact on either ROE or sales growth. Boyd (1994) found firm profitability significantly predicted board compensation while Mishra and Nielsen (2000) found that pay-for-performance was a better predictor of performance when there were fewer independent directors, a finding that is supported by Zajac and Westphal's (1996). Marimuthu (2009) failed to draw conclusive findings on effect of BOD diversity on performance. Beasley (1996) found a positive and significant relationship between the presence of an audit committee and the quality of financial statements. Brickley, Coles, and Jarrell (1997) found that there are significant costs associated with the process of separating the positions of CEO and BOD chair, and clear benefits with the practice of CEO duality. Conversely a study by Hayward and Hambrick (1997) concluded that CEO duality negatively impacts performance.

Several studies have also been conducted in Kenya with conflicting results. Chogii (2009) found out that board size, board composition and CEO duality are important predictors of firm performance. Maina (2005) posit that adding outside directors to the board, audit committee independence, directors from financial institutions, CEO duality are not performance enhancing. Muriithi (2004) and Okiro (2006) however found no significant relation between board size and Tobin's Q. Langat (2006), concluded that firms with BODs that are outsider-dominated exhibited improved performance, a finding supported by Chogii (2009). Langat (2006) found that firms that pay high salaries and bonuses to the executives exhibited improved performance. Letting' (2011)

found that one of the BODs demographic characteristics of age, gender, educational and professional background had statistically significant moderating effect on the relationship between board attributes and firm financial performance. Jovita (2010) found that firm performance is not significantly influenced by audit committee.

Determining the reason(s) for the enigmatic contradictions and ambiguity within the CG literature is imperative to clarifying the relationship between BOD characteristics and firm financial performance (Raymond et al, 2009). Most of the research conducted on CG has focused on all the firms listed in the various security exchanges around the world. However the companies listed in these security exchanges are classified into sectors/industries due to the variance in their products, markets and the firms' characteristics and risk profiles. There are few studies that have focused on specific sectors / industry in trying to investigate the relationship. Restricting attention to firms in a single sector helps reduce inter-industry heterogeneity. In their study of banking firms, Mishra and Nielsen (2000) argued that industry-specific factors account for a large proportion of performance variability in a sample of firms, and may obscure the relation between board structure and performance.

This research therefore seeks to focus on only one sector of the NSE and will aim to answer the question: What is the relationship between board characteristics (board size, board independence and board compensation, CEO duality, Audit Committees and BOD diversity) and the financial performance of the companies listed in the manufacturing and allied sector of the NSE?

1.3 Research Objectives

The research has the following six objectives:

a) To determine the relationship between board size and firm financial performance
b) To find out if there exist a relationship between board independence and firm financial performance.
c) To establish the relationship between board compensation and firm financial performance.
d) To verify if existence of CEO duality has an effect on firm financial performance.
e) To ascertain the impact of board diversity on firm financial performance.
f) To confirm if there exist a relationship between the existence of audit committees and firm financial performance.

1.4 Value of Study

This research is important to various groups by shedding more light on the relationship between BOD characteristics and firm financial performance as it seeks to reduce the degree of ambiguity in previous studies.

Researchers and academics will benefit from the addition to the existing body of knowledge on CG. Shareholders of manufacturing and allied firms in Kenya and in particular the ones listed at the NSE will also benefit from the research as it will present findings on the relationship between board characteristics and firm financial performance.

The regulator, CMA, will also benefit from this especially considering the CG issues related to BODs recently witnessed in CMC Motors and other listed companies like East Africa Portland Company.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews previous studies on the relationship between board characteristics and firm financial performance. The chapter is divided into three sections. The first section reviews the theories of corporate governance. The second section reviews literature on the effect of the selected board characteristics on firm financial performance. The chapter ends with a conclusion on the above.

2.2 Theories of Corporate Governance

Corporate governance challenges are as old as management. Adam Smith (1776) noticed the potential issues of the dissociation between capital owners and administrators and opined that the directors of such [joint-stock] companies, however, being the managers rather of other people's money than of their own, it cannot well be expected, that they should watch over it with the same anxious vigilance with which the partners in a private copartnery frequently watch over their own.

Following the seminal work by Berle and Means (1932), different theories have been propounded in explaining CG issues. CG literature reveals a wide range of theories but the most important theories that are associated with the development of corporate governance are transaction cost theory, stewardship theory, agency theory, and resource dependency theory. However, agency theory is by far the most common anchor for studies in the corporate governance literature (Daily et al. 2003).

2.2.1 Transaction Cost Theory

Transaction cost theory states that the firm (understood as a sum of contracts put in place in order to organize and regulate transactions) is a comparatively efficient hierarchical structure that serves for accomplishing contractual relations. The main concern of transaction cost theory is to explain the carrying out of economic transactions by the efficiency of the chosen governance structures that have been tailored to carry out the transactions at hand (Wieland 2005).

Oliver E. Williamson, the founder of transaction cost economics, considers the study of governance to be concerned with the identification, explication, and mitigation of all forms of contractual hazards. Firms and markets have alternative modes of governance and the allocation of activity between firms and markets is not taken as given but is something to be derived. Governance regimes consist of both formal and informal structures and rules. The CG problem in transaction-cost economics is, therefore, not the protection of ownership rights of shareholders, but the effective and efficient accomplishment of transactions by firms in their cultural and political environment, with laws and contracts being considered governance structures (Williamson, 2009).

2.2.2 Stewardship Theory

Stewardship theory has its roots in psychology and sociology. It was adapted as a theoretical framework for researchers to examine decision-making, actions, and performance of executives who are acting as faithful stewards for principals (Davis, Schoorman, and Donaldson, 1997).

It infers that managers are trustworthy and competent administrators of corporate resources and are best positioned to maximize the interests of shareholders since they are most familiar with the intricacies of corporate strengths, weaknesses, opportunities, and threats (Boyd, 1995).

2.2.3 Resource Dependency Theory

Resource dependency theory emphasizes that resources required by organizations need to be acquired through a network of contacts and the efficiency and effectiveness in bridging network gaps will determine the quality of corporate performance. Resource dependency theory describes organizational success as the ability to maximize power by accessing scarce and essential resources (Pfeffer, 1972; Ulrich and Barney, 1984). BODs can assist firms in gaining access to important resources that might otherwise be beyond the firms' reach (Brown, 2005).

Boards are considered important in securing the necessary resources, such as knowledge, capital, and venture partnering arrangements. Diversity of corporate board members has been found to be an important element in this theory since it can lead to broader corporate networks and improve financial performance (Waddock and Graves, 1997).

2.2.4 Agency Theory

Adam Smith (1776) described the agency problems like the stewards of a rich man; "They (managers) are bound to consider attention to small matters as not for their masters honor and very easily give themselves a dispensation from having it. Negligence and profusion must always prevail, more or less, in the management of such company."

Agency theory is focused on the problems relating to the separation of ownership and control. The personal separation of owners and managers, and the legal separation of ownership rights and decision rights, lead to the core problem of agency theory: the conflict of different utility functions and interests between owners and managers in a firm. Agency theory suggests an inherent imperfection in the relationship between owners/ capital providers (principals) and managers/ fiduciaries (agents) of that capital.

It is a long-held concept that argues that when corporate ownership is separated from corporate management, behaviors, decisions, and actions by managers will deviate from those required to maximize shareholder value (Jensen and Meckling, 1976).

This theory was formalized in the early 1970s by Harold Demsetz but its germination can be seen much earlier in the works of Berle and Means (1932). Jensen and Meckling (1976) extended this base theory to the issues related to the separation between ownership and control and noted that shareholding induces a delegation of managerial responsibility from a firm's principals to their upper echelon agents (managers). The delegation causes a misalignment of incentives due to different preferences for risk. According to Muriithi (2004) corporate boards represent an institutional solution to the agency conflict between shareholders and entrenched management.

2.3 Empirical Studies

2.3.1 Board size and financial performance

Yermack (1996) evaluated a proposal for limiting the size of boards of directors in order to improve their effectiveness and found evidence to support the proposal. The main hypothesis of the study was that firm value depends on the quality of monitoring. His sample was 452 large U.S. public corporations, drawn from Forbes magazine ranking of 500 largest U.S. public corporations, observed over the period 1984 to 1991. Tobin's Q was used as a performance measure (dependent variable) with BOD size being one of the independent variables. Least-squares regressions analysis was employed. He found an inverse relation between firm market value, as represented by Tobin's Q, and the size of the board of directors. The association appeared in both cross-sectional analyses of the variation among firms and in time-series analyses of the variation within individual companies. He noted that the negative relation between

board size and firm value attenuates as boards become large, implying that the greatest incremental costs arise as boards grow from in size from small to medium.

Guest (2009) examined the impact of board size on firm performance for a large sample of 2,746 UK listed firms over 1981-2002. Secondary data on board size and financial performance was collected from "Datastream" and regression analysis used to analyze the data collected. They noted that the UK provided an interesting institutional setting, because UK boards play a weak monitoring role and therefore any negative effect of large board size is likely to reflect the malfunction of the board's advisory rather than monitoring role. They found that board size has a strong negative impact on profitability, Tobin's Q and share returns. They also found that the negative relation is strongest for large firms, which tended to have larger boards. Overall, their evidence supports the argument that problems of poor communication and decision-making undermine the effectiveness of large boards.

Muriithi (2004) investigated if there exists any significant relationship between CG mechanisms and financial performance. He took an empirical approach to examine this relationship and focused on 44 firms listed at the NSE in the five year period between 1999 and 2003. Tobin's Q, Stock Market Returns (RET) and ROA were used as financial performance measures and data was collected from secondary sources, which included the audited financial statements and annual reports of the companies. Having classified the variables into three categories of CG mechanisms, control variables and performance measures, he developed multiple regression equations and used the same to estimate the relationship between board size, board composition and financial performance. The average board size of Kenyan listed firms was found to be eight. Board size was found not to be significantly associated with Tobin's Q but had significant positive association with RET at a confidence level of 0.01%.

Okiro (2006) studied companies quoted at the NSE over the period 2000 to 2002 to determine the relationship between board size, board composition and firm performance. He excluded banks and other financial institutions due to their huge debt structure. He used secondary data mainly obtained from NSE and the financial statements and annual reports and Tobin's Q was used as performance measure with company size and gearing being the control variables. He found a mean board size of 7.18 suggesting that firms in Kenya have relatively moderate board sizes with a maximum of 15 and standard deviation of 2.85. Using multiple linear regression model to analyze the data collected he found that there is no relationship between BOD size and financial performance.

2.3.2 Board independence and financial performance

Bhagat and Black's (2002) conducted a study on 934 largest US firms covering 10 year period and questioned the empirical validity of the need for board independence and its effect on performance. They found that firms with a higher percentage of outside directors had significantly lower financial (ROA) and stock market (Tobin's Q) performance in the following three years. They also found that lower performing firms were more likely to add independent directors but the results offered no evidence that firms with more independent boards perform better. They provided evidence instead that firms with more independent boards do not perform better. The results supported their hypothesis that independent directors who hold significant stock positions may add value while other independent directors do not.

Peng (2004) studied the relationship between board composition and firm performance in China. Focusing on all the 530 firms listed on the Shanghai and Shenzhen Stock Exchanges, whose combined capitalization was approximately 25 percent of China's Gross Domestic Product (GDP), in an approach to replicate most of the existing

research samples that used U.S. *Fortune* 500 firms in the Chinese context. He used ROE and sales growth as firm performance measures. Prior performance, firm size and firm age were the control variables in the study. He employed the use of weighted generalized least squares procedure in the analysis and found that increasing the percentage of independent directors had no impact on either ROE or sales growth, but that adding more affiliated, outside directors, was linked to higher subsequent sales growth. This he attributed to the role the directors business networks play in securing resources for the firm.

Langat (2006) conducted a cross-sectional survey to identify different governance structures between companies facing decline in value, those with appreciating values and those with stable values over the period 2001-2005. The study targeted 47 companies listed in the NSE for the five year period. Secondary data collected mainly from annual reports and financial statements of the firms were used, with Tobin's Q (the performance measure) for the firms computed at the end of each financial year. Descriptive statistics and regression analysis was used to analyze the data collected. The study found out that firms that are outsider-dominated (where the ratio of non-executive directors is greater than 60%) exhibited improved performance than firms with mixed boards (40-60% domination) and insider-dominated boards (up to 40% domination).

Chogii (2009) investigated, from a point of two governance theories (Agency Theory and Stewardship Theory), whether there is a relationship between BOD attributes (board size, board composition and CEO duality) and firm financial performance (ROA and Tobin's Q). He studied companies listed at the NSE over the study period of 2004 to 2007. He used secondary data collected from the annual reports and financial statements and analyzed the same using descriptive statistics and regression analysis. Most firms surveyed tended to have outside dominated boards with the prevalence of

outside directors found to be twice as much as for inside directorship. He found that when Tobin's Q is used as the performance measure board composition was found to influence firm performance with the number of outside directors being a significant variable.

2.3.3 Board compensation and financial performance

Jensen and Murphy (1990) used CEO compensation data (based on the Executive Compensation Surveys published in *Forbes* for the period) on a sample of 1,295 firms from 1974 to 1986. They matched the compensation data to fiscal year corporate performance data obtained from the Compustat and Center for Research in Security Prices. Least-squares regression and descriptive statistics was then used to analyze the data. They found empirical evidence consistent with the broad implication of agency theory indicating that CEO's pay-related wealth and the value of his stockholding are positively and statistically significant to the changes in shareholder wealth, and CEO turnover probabilities are negatively and significantly related to changes in shareholder wealth. However the magnitude seemed small in terms of the implied relationship

Conyon and Leech (1994) investigated the agency theory's prediction that CEO compensation is positively related to corporate performance in large UK companies. They examined the relationship between top director pay, company performance and corporate governance in a sample of 294 large UK listed firms between 1983 and 1986. The reported econometric results revealed that although a statistically significant relationship can be established between BOD compensation and shareholder wealth, the estimated elasticity is quantitatively very small. They found a positive but very small pay elasticity estimate with respect to firm performance. In line with other research, they found that sales revenues were important in explaining top director pay.

Aduda (2011) in his study adopted a causal research design by examining the relationship between executive compensation and financial performance among the nine commercial banks listed at the NSE as at December 2008. He conducted a census survey employing secondary data which was obtained from the financial statements of the commercial banks and a multiple regression model was used to analyze the data using statistical package for the social sciences (SPSS) version 15. The study found a negative non-significant relationship between executive compensation and performance of commercial banks in Kenya. He indicated that in the large commercial banks, size is a key criterion in determining executive compensation and noted that there is need to reign in the executive compensation tendencies in smaller banks to favor bigger shareholders who double up as bank directors to the detriment of returns and smaller owners of the bank.

Langat (2006) in his cross-sectional survey of 47 firms listed in the NSE for the five year period of 2001-2005 sought to identify different governance structures between companies facing decline in value, those with appreciating values and those with stable values. Using secondary sources of data from the annual reports and financial statements of the firm and employing descriptive statistics and linear regression, he found that listed firms that pay high salaries and bonuses to the directors (mainly executive directors) exhibit improved performance and as such BOD compensation was an important catalyst of financial performance. Tobin's Q was used as the financial performance measure.

2.3.4 CEO duality and financial performance

Rechner and Dalton (1991) examined the relation between CEO duality and firm performance. Their study support agency theory expectations about inferior shareholder returns from CEO duality. They studied a random sample of corporations from the Fortune 500 for a period of six years between 1978 and 1983. They identified corporations which had remained with either dual or independent chair-CEO structures for each year of a six-year period. They found that corporations which had independent chair-CEO structures had higher return on equity (ROE), return on investment (ROI) and profit margins. However, Rechner and Dalton (1991) made no control for industry in their study. In a study that controlled for industry and firm size, Donaldson & Davis (1991) examined the effects of CEO duality on shareholder returns of 321US corporations and using cross-sectional design firms whose board structures had a dual CEO-chair were compared with those where the chair was independent from the CEO. The study found that shareholder returns, in terms of ROE, were superior when there is CEO duality.

Maina (2005) examined the effect of board composition on firm's performance in companies quoted in the NSE for a period of ten years starting from 1994 to December 2003. The primary data was collected using a questionnaire method while secondary data was also utilized and a multiple regression model was used to analyze the data gathered. Performance was measured by ROE and Tobin's Q and elements of board composition practices included board independence, audit committee independence, CEO duality and directors from financial institutions. Firm's size, financial leverage and board size were control variables. She found no significant relationship between firms' performance as measured by ROE and board composition variables. The empirical findings suggested that, adding outside directors to the board, audit committee independence, directors from financial institutions, CEO duality are not performance

enhancing. She also documented that the most popular or preferred board mix consists of an average of 8 members in size, 70% non-executives and no CEO duality. The findings reflect that boards in Kenya embrace the recommendations on good corporate governance as outlined by Capital Market Authority in 2002.

2.3.5 Board diversity and financial performance

Marimuthu (2009) empirically examined the effect of demographic diversity on boards of directors with regard to firm financial performance using secondary data of Top 100 Malaysian listed companies (from the non-financial sector) over the period 2000 to 2006. Demographic diversity was represented by ethnic and gender diversity and performance was measured by ROA and ROE. A series of OLS regressions was used for data analysis. The results seemed to be quite inconsistent to prove the relevance of diversity among the board members with regard to financial performance but ethnic diversity was found to have significant impact on performance. Carter, D'souza, Simkins and Simpson (2010) used a sample that included firms in the S&P 500 index for the five-year period 1998–2002. They used Tobin's Q & ROA as financial performance measures. The results indicated a positive and significant relationship between both the number of women on the board and the number of ethnic minorities on the board and the ROA. When Tobin's Q was used as the measure of financial performance, they found no relationship to gender diversity or ethnic minority diversity.

Letting' (2011) sought to contribute to the CG knowledge by assessing the relationship between BODs' attributes, strategic decision-making processes and corporate performance among the 47 listed firms in the NSE under the main investment market segment as of December 2010. The study used a cross-sectional design with the survey period covering four financial years from 2006 to 2009. Both primary and secondary

data was collected and analyzed. Individual board member demographic characteristics included age, gender diversity, educational background and professional experience of the board members. The findings of the study indicated that the board size in Kenya among the listed firms consist of an average of nine board members and that the average age of the board members of the firms surveyed was 56 years. Majority of the board members were male board members at ninety-three (93) percent while women made up only seven (7) percent of the total board members. The most common area of educational specialization for most of the board members was Business Administration (21 percent) and Finance and Accounting consisted 22 percent. None of the BODs demographic characteristics had statistically significant moderating effect on the relationship between board attributes and firm financial performance.

2.3.6 Audit committee and financial performance

Azam, Hoque & Yeasmin (2010) in a study of the largest 119 companies in Australia, listed in the Australian Stock Exchange over the period 1999-2007 studied the impact of audit committee on equity returns. Data was collected from the annual reports and Descriptive statistics, correlation analysis and linear regression were used in data analysis. From the results it appeared the frequency of audit committee meetings influenced equity return (ROE) in the Australian firms. The findings however indicated that higher proportion of independent directors on the audit committee does not influence the equity return in the Australian firms.

Jovita (2010) studied the relationship between measures of board independence and the financial performance of commercial banks in Kenya with one of the objectives being to assess the influence of audit committee structure on firm performance. This was a

cross-sectional survey that targeted all the 45 commercial banks in Kenya operating within Nairobi with 36 firms forming the sample. Data for the period 2004 through 2008 were obtained from the annual financial reports. Firm performance was measured by ROA. Using descriptive analysis and regression analysis, the study found that firm performance is not significantly influenced by audit committee structure.

Njagi (2012) investigated how corporate governance practices employed by sugar companies in Kenya affect their financial performance. All the seven sugar firms that were operational between 2005 and 2011 were used in the study. Data was then analyzed using profitability measures with the aid of SPSS. The study confirmed that financial performance of companies improve with increase in financial literacy of the audit committee and increased disclosure of the corporate governance practices

2.4 Summary of Literature Review

The literature review shows that there appears to be some evidence to indicate that the BOD characteristics have an impact on firm financial performance and that good BOD practices contribute to investor confidence in the firm which in return result in improved financial performance and continued success of firms (Langat, 2006). However this is not consistent and is also dependent on the financial performance measure used (whether accounting or market based measures).

Despite agency theory's logic and several policy influences, whether good BOD characteristics (and hence good CG) lead to better financial performance needs further empirical clarification. In light of the globally mixed findings in the West, the corroborative findings from emerging economies such as China and Malaysia, and the findings by Kenyan researchers, it seems imperative that future researchers draw upon the rich insights of other perspectives such as resource dependence, transaction cost and

stewardship theories when probing into the intriguing relationship between board characteristics and firm performance (Peng, 2004).

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the research methodology that was employed in the study. It explains the research design, study population, data collection, data analysis, research variables and data analysis techniques used.

3.2 Research Design

This was an analytical study of the effect of board characteristics and firm performance using a causal research design. It entailed the use of descriptive statistics, correlation analysis and multiple linear regressions to answer the research questions.

3.3 Population

The general population for the study was the companies in the manufacturing and allied sector in Kenya. The manufacturing and allied sector was selected due to its importance in Kenya achieving the economic pillar of Vision 2030. Restricting attention to firms in a single industry helps reduce inter-industry heterogeneity. In their study of banking firms, Mishra and Nielsen (2000) argued that industry-specific factors account for a large proportion of performance variability in a sample of firms, and may obscure the relation between board structure and performance.

3.4 Sample

Due to the challenges of getting financial and corporate governance data of private companies, publicly listed companies in the manufacturing and allied sector of the NSE were used as a sample. As indicated in appendix 1, the nine firms listed in the manufacturing and allied sector of the NSE (as per the NSE website) were studied for a period of four years from 2009 to 2012 to ensure that the results are not biased by the

particular year under investigation and to allow for employment of appropriate econometric methods to control for endogeneity as observed by Lipton and Lorsch (1992). Data on two companies in the sector (Kenya Orchards and A. Baumann) were not available and so the final population used in the study population consisted of seven firms.

The listed companies represent the top manufacturing enterprises in Kenya and are likely to possess greatest potential to attract and employ skilled and competent individuals in their BODs. These firms also have good access to capital and other resources necessary not only for survival but also for improving their performance and competitive position.

3.5 Data Collection

The data for this study came from multiple sources of secondary data. Financial performance was measured by Return on Equity (ROE), Return on Assets (ROA) and were computed based on data collected from the firms' publicly available Annual Reports and Financial Statements. Tobins Q was computed using the data collected from the financial statements and NSE reports on stock market performance. BOD characteristics data was collected from the Annual Reports and Financial Statements and other data on firms' CG practices available at the CMA library. Table 3.1 indicates how the variables were measured.

3.6 Data Analysis

Data is useful only after analysis. Data analysis deals with the conversion of a series of data gathered into information statements (i) which descriptively state the information in terms of means, percentages, classification or distribution, or (ii) which makes assertions about relationships conjectured prior to data collection, or (iii) which provides estimates for the purposes of prediction (Krishnaswamy et al., 2006).

The data collected was analyzed using descriptive statistics, correlation analysis and multiple regression analysis facilitated by use of SPSS.

3.6.1 Dependent variables

Financial performance was the dependent variable. For the purpose of this study, we used ROA, ROE and Tobin's Q so as to capture both the accounting and market based financial performance measures. ROA is an indicator of what management has accomplished with the given resources (assets). Tobin's Q (TOBQ) combines both stock market and accounting information and is also referred to as the ratio of market value to replacement value of the same physical asset.

3.6.2 Independent variables

The explanatory variables included BOD size, BOD independence, CEO duality, BOD diversity (women), BOD diversity (foreigners) and BOD compensation.

3.6.3 Control variables

Asset structure and debt structure (leverage) were the control variables. Asset structure (FASSR) is the ratio of fixed assets to total assets. Leverage (FLEVR) is the ratio of total debts to the book value of total assets. These were used since firm performance can be influenced by several factors and asset structure and leverage are determinants of financial performance (Dalton et al., 1999).

3.6.4 Model specification

Previous researches on this topic have utilized multiple linear regressions. This study will use the model adopted by Wintoki (2007), Lipton and Lorsch (2009) and Chogii (2009);

$COFP_{it} = \beta_o + \beta_1 BC + \beta_2 CV + e$

Where:

$COFP_{it}$ represent firm financial performance measures for firm I in time t.

BC is a vector of board characteristics.

CV is a vector of control variables. e represents the error term.

From the above general equation we can generate following two multiple regressions;

$$ROE_{it} = \beta_0 + \beta_1 BODSZ + \beta_2 BODIN + \beta_3 BODAC + \beta_4 BODCO + \beta_5 BODDIW + \beta_6 BCEOD + \beta_7 BODDIF + \beta_8 FASSR + \beta_9 FLEVR + e$$

$$ROA_{it} = \beta_0 + \beta_1 BODSZ + \beta_2 BODIN + \beta_3 BODAC + \beta_4 BODCO + \beta_5 BODDIW + \beta_6 BCEOD + \beta_7 BODDIF + \beta_8 FASSR + \beta_9 FLEVR + e$$

$$TOBQ_{it} = \beta_0 + \beta_1 BODSZ + \beta_2 BODIN + \beta_3 BODAC + \beta_4 BODCO + \beta_5 BODDIW + \beta_6 BCEOD + \beta_7 BODDIF + \beta_8 FASSR + \beta_9 FLEVR + e$$

3.6.5 Tests of Significance

The p – values from the Anova results of the regression analysis were used to test for significance of the relationship between the variables. The conventional probability of 0.05 (5%) was used to test for significance, where any p-value of less than 0.05 indicated a significant relationship.

Table 3.1 Variable Description and Measurement

Variable	**Description**	**Measurement**
BODSZ	Board Size	Number of directors on the Board
BODIN	Board Independence	Percentage of Non- Executive directors on the Board
BODAC	Board Audit Committee	Existence of Audit Committee (Yes:1, No:2)
BODCO	Board Compensation	Directors Remuneration as a percentage of Net Income
BODDIW	Board Diversity - Women	Percentage of women in the Board
BODDIF	Board Diversity - Foreigners	Percentage of foreigners in the board
BCEOD	CEO Duality	Existence of CEO Duality (Yes:1, No:2)
FASSR	Asset Structure	Non Current Assets / Total Assets
FLEVR	Debt Structure (Leverage)	Debt / Total Assets
ROE	Return on Equity	Net Income / Shareholders Equity
ROA	Return on Assets	Net Income / Total Assets
TOBQ	Tobins Q	Market Value / Net Assets

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents the analysis, findings and interpretation of data collected on the effect of board characteristics variables on firm financial performance variables. The chapter will have four sections: The first section will presents the descriptive statistics findings; the second section will present the Pearson's correlation between the bard characteristics and financial performance; the third section will present the linear regression analyses with ROE as the dependent variable; the fourth section will present the linear regression analyses with ROA as the dependent variable; the fifth section will present the linear regression analyses with Tobin's Q as the dependent variable; The final section will discuss and interpret the findings.

4.2 Descriptive Statistics

Table 4.2 Descriptive Statistics

Variable	N	Units	Minimum	Maximum	Mean	Std. Deviation
Return on Equity	28	Percentage	-62	175	29.393	37.924
Return on Assets	28	Percentage	-17	33	15.607	12.242
Tobin's Q	28	Ratio	0.17	6.5	2.174	1.813
Board Size	28	Number	5	12	9.070	2.478
Board Independence	28	Percentage	55	92	70.964	12.700
Existence of Audit committee	28	1(yes) 2(No)	1	1	1	0
Board Compensation	28	Percentage	-16	235	15.464	45.76
Board Diversity - Women	28	Percentage	0	43	19	12.049
Board Diversity – Foreigners	28	Percentage	0	58	24.750	14.331
Existence of CEO Duality	28	1(yes) 2(No)	2	2	2	0
Firm Asset Structure	28	Percentage	19	77	50.893	18.142
Firm Debt Structure	28	Percentage	14	84	42.25	19.119

Table 4.2 shows the descriptive statistics. The companies studied had an average ROE of 29.39%, average ROA of 15.61% and average Tobin's Q ratio of 2.17. The board size was found to have a mean of 9.07 members with a maximum and minimum of 12 and 5 members respectively. Independent board members consisted of a mean of

70.96% of the BOD, with a standard deviation of 12.7%. All firms in the study had audit committees and did not practice CEO duality.

Board compensation was found to be an average of 15.46% of net income with a standard deviation of 29.37%. Board diversity as represented by the percentage of women in the board had a mean of 19% of the BOD and the highest percentage of women in board was 42% of the BOD with a minimum of zero. Board diversity as represented by the percentage of foreign directors had a mean of 24.75% of the BOD members and a standard deviation of 14.33%.

The firms were found to have a mean fixed assets of 50.89% of the total assets with a standard deviation of 18.14% while the debt structure had a mean of 42.25% with a standard deviation of 19.11%.

4.3 Regression and Correlation Analysis Results

4.3.1 Correlation Analysis

Table 4.3 Pearson's Correlation Statistics

			BODAC	BCEOD	BODSZ	BODIN	BODDIW	BODDIF	BODCO	FASSR	FLEVR
ROE	Pearson Correlation		.[a]	.[a]	.369	-.462*	.065	.326	-.146	.383*	.207
	Sig. (2-tailed)				.053	.013	.741	.090	.459	.044	.290
	N		28	28	28	28	28	28	28	28	28
ROA	Pearson Correlation		.a	.a	.156	-.591**	-.367	.097	-.283	.523**	-.292
	Sig. (2-tailed)				.428	.001	.055	.624	.144	.004	.131
	N		28	28	28	28	28	28	28	28	28
TOBQ	Pearson Correlation		.a	.a	.273	-.581**	.144	.403*	-.112	0.3454	.182
	Sig. (2-tailed)				.159	.001	.465	.033	.571	.072	.353
	N		28	28	28	28	28	28	28	28	28

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

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

Table 4.3 summarizes the correlation between the independent variables, control variables on one hand and the dependent variables. It displays that audit committee, CEO duality, BOD size, percentage of women directors, BOD compensation and debt

structure are not related to firm performance as measured by ROE, ROA and Tobin's Q. shows the relationship between the board characteristics and firm financial performance as represented by ROE. From the findings only the independent variable BOD independence was found to have significant negative effect on ROE at a significance level of 0.05. However, firm asset structure (control variable) was found to have a positive effect on ROE at a 0.05 significance level.

Table 4.3 also indicates that BOD independence has a negative relationship with ROA but only at a significance level of 0.01. The firm's asset structure had a positive relationship with ROA at a significance level of 0.01.

When Tobin's Q is used to measure financial performance BOD diversity, as represented by percentage of foreigners in the BOD, had a significant positive effect on financial performance. BOD independence also had a negative, albeit less significant, effect on performance as represented by Tobin's Q.

4.3.2 Multiple linear regressions using ROE

Table 4.4.1 Regression Model Summary Using ROE (Including Control Variables)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.809[a]	.654	.533	25.9141126	2.035

a. Predictors: (Constant), Firm Leverage, Board Independence, %age of Foreigner in Board, Board Compensation, Firm Asset Structure, Board Size, %age of Women in Board
b. Dependent Variable: ROE

Table 4.4.2 Regression Model Summary Using ROE (Excluding Control Variables)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.697a	0.486	0.369	30.12125
a Predictors: (Constant), BODCO, BODDIF, BODSZ, BODIN, BODDIW				

Table 4.4.1 indicates the influence of board characteristics of BOD independence, percentage of foreign BOD members, percentage of women members, BOD compensation, and BOD size together with the control variables; asset structure and leverage have an R Square of 0.654. This means that together they have a 65.4% effect on ROE. However, as indicated in Table 4.4.2, when the control variables are excluded the BOD characteristics have an R Square of 0.486 meaning together they have a 48.6% effect on ROE.

Table 4.4.3 Coefficients of Multiple Regression Analysis Using ROE

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	-20.503	74.615		-.275	.786
	Board Size	3.716	2.682	.243	1.386	.181
	Board Independence	-1.184	.787	-.396	-1.505	.148
	%age of Women in Board	-.241	1.250	-.077	-.193	.849
	%age of Foreigner in Board	.873	.755	.330	1.157	.261
	Board Compensation	-.055	.131	-.067	-.422	.678
	Firm Asset Structure	1.064	.351	.509	3.033	.007
	Firm Leverage	.708	.557	.357	1.270	.219

Table 4.4.3 provides the coefficients for the linear regression. From the table we can express the ROE linear regression as follows;

ROE = -20.503 + 3.716BODSZ – 1.184 BODIN – 0.241BODDIW + 0.873BODDIF – 0.055BODCO + 1.064 FASSR + 0.708 FLEVR

4.3.3 Multiple linear regressions using ROA

Table 4.5.1 Regression Model Summary Using ROA (Including Control Variables)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.858[a]	.736	.644	7.3069485	2.211

a. Predictors: (Constant), Firm Leverage, Board Independence, %age of Foreigner in Board, Board Compensation, Firm Asset Structure, Board Size, %age of Women in Board
b. Dependent Variable: ROA

Table 4.5.2 Regression Model Summary Using ROA (Excluding Control Variables)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.731a	0.534	0.428	9.2609
a Predictors: (Constant), BODCO, BODDIF, BODSZ, BODIN, BODDIW				

Table 4.5.1 shows that the BOD independence, percentage of foreign BOD members, percentage of women members, BOD compensation, and BOD size together with the control variables of asset structure and leverage has an R Square of 0.736. This means that together they have a 73.6% effect on ROA. Table 4.5.2 indicates that when the control variables are excluded the BOD characteristics have an R Square of 0.534 and as such the BOD Characteristics have a 53.4% effect on ROA.

Table 4.5.3 Coefficients of Multiple Regression Analysis Using ROA

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	67.694	21.039		3.218	.004
	Board Size	.705	.756	.143	.932	.362
	Board Independence	-.920	.222	-.954	-4.145	.001
	%age of Women in Board	.573	.352	.564	1.625	.120
	%age of Foreigner in Board	-.275	.213	-.322	-1.293	.211
	Board Compensation	-.020	.037	-.075	-.540	.595
	Firm Asset Structure	.302	.099	.447	3.050	.006
	Firm Leverage	-.292	.157	-.455	-1.856	.078

Table 4.5.3 provides the coefficients for the linear regression. From the table we can express the ROA linear regression as follows;

ROA = 67.694 + 0.705BODSZ – 0.920BODIN +0.573BODDIW -0.275BODDIF – 0.020BODCO + 0.302FASSR - 0.292FLEVR

4.3.4 Multiple linear regressions using Tobin's Q

Table 4.6.1 Regression Model Summary Using Tobin's Q (Including Control Variables)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.911[a]	.831	.771	.8671035	1.977

a. Predictors: (Constant), Firm Leverage, Board Independence, %age of Foreigner in Board, Board Compensation, Firm Asset Structure, Board Size, %age of Women in Board
b. Dependent Variable: Tobin Q

Table 4.6.2 Regression Model Summary Using TOBQ (Excluding Control Variables)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.781a	0.61	0.521	1.25428
a Predictors: (Constant), BODCO, BODDIF, BODSZ, BODIN, BODDIW				

Table 4.6.1 indicates that the board characteristics of BOD independence, percentage of foreign BOD members, percentage of women members, BOD compensation, and BOD size together with the control variables, asset structure and leverage have an R Square of 0.831. This means that together they can explain 83.1% of the changes in Tobin's Q. As portrayed in Table 4.6.2 without the control variables the BOD characteristics have an R Square of 0.61 and as such the BOD characteristics together they have a 61% effect on ROA.

Table 4.6.3 Coefficients of Multiple Regression Analysis Using TOBQ

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	9.114	2.497		3.650	.002
	Board Size	.044	.090	.061	.496	.626
	Board Independence	-.157	.026	-1.100	-5.964	.000
	%age of Women in Board	.152	.042	1.010	3.633	.002
	%age of Foreigner in Board	-.039	.025	-.309	-1.545	.138
	Board Compensation	-.002	.004	-.043	-.384	.705
	Firm Asset Structure	.055	.012	.550	4.684	.000
	Firm Leverage	-.021	.019	-.222	-1.129	.272

Table 4.6.3 provides the coefficients for the linear regression. From the table we can express the ROE linear regression as follows;

TOBQ = 9.114 + 0.044BODSZ – 0.157BODIN + 0.152BODDIW – 0.039BODDIF – 0.002BODCO + 0.055FASSR - 0.021FLEVR

4.3.5 Tests of significance results

Table 4.7.1 Anova using ROE (Including Control Varoables)

ANOVAa

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	25401.854	7	3628.836	5.404	.001[b]
	Residual	13430.825	20	671.541		
	Total	38832.679	27			

a. Dependent Variable: ROE

b. Predictors: (Constant), Firm Leverage, Board Independence, %age of Foreigner in Board, Board Compensation, Firm Asset Structure, Board Size, %age of Women in Board

Table 4.7.2 Anova using ROA (Including Control Variables)

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2978.849	7	425.550	7.970	.000[b]
	Residual	1067.830	20	53.391		
	Total	4046.679	27			

a. Dependent Variable: ROA

b. Predictors: (Constant), Firm Leverage, Board Independence, %age of Foreigner in Board, Board Compensation, Firm Asset Structure, Board Size, %age of Women in Board

Table 4.7.3 Anova using Tobin's Q (Including Control Variables)

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	73.705	7	10.529	14.004	.000[b]
	Residual	15.037	20	.752		
	Total	88.742	27			

a. Dependent Variable: Tobin Q

b. Predictors: (Constant), Firm Leverage, Board Independence, %age of Foreigner in Board, Board Compensation, Firm Asset Structure, Board Size, %age of Women in Board

Table 4.7.4 Anova using ROE (Excluding Control Variables)

ANOVAa						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	18872.308	5	3774.462	4.16	.008b
	Residual	19960.371	22	907.29		
	Total	38832.679	27			
a Dependent Variable: ROE						
b Predictors: (Constant), BODCO, BODDIF, BODSZ, BODIN, BODDIW						

Table 4.7.5 Anova using ROA (Excluding Control Variables)

ANOVAa						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2159.866	5	431.973	5.037	.003b
	Residual	1886.812	22	85.764		
	Total	4046.679	27			
a Dependent Variable: ROA						
b Predictors: (Constant), BODCO, BODDIF, BODSZ, BODIN, BODDIW						

Table 4.7.6 Anova using Tobin's Q (Excluding Control Variables)

ANOVAa						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	54.131	5	10.826	6.882	.001b
	Residual	34.611	22	1.573		
	Total	88.742	27			
a Dependent Variable: TOBQ						
b Predictors: (Constant), BODCO, BODDIF, BODSZ, BODIN, BODDIW						

The Anova statistics for regressions conducted with the control variables included, as represented in Table 4.7.1, Table 4.7.2 and Table 4.7.3 indicate that the overall regression model was significant. The reported probabilities were less than the conventional 0.05 (5%). This shows that when all the independent variables are considered together with the control variables they are good joint predictors of financial performance. However when the control variables are excluded, then the overall regression model is only significant for ROA and Tobin's Q as indicated in Table 4.7.5 and Table 4.7.6, but not for ROE as indicated in Table 4.7.4. Hence BOD characteristics, on their own, are not good joint predictors of ROE but are good joint predictors of ROA and Tobin's Q.

4.4 Discussion and Interpretation of Findings

The study results indicate that BOD characteristics have an effect on firm financial performance. The effect varies depending on the choice of financial performance measure. Board Independence is shown to have a significant negative effect on financial performance regardless of the financial performance measure used. This indicates that more non-executive directors in the BOD results in decrease in performance, this contradicts the expectations of agency theory.

Firm asset structure was found to have a significant positive relationship with ROE & ROA. This indicates that the higher the percentage of non-current assets to total assets the higher the ROE & ROA. The percentage of foreign directors in the BOD was found to have a significant relationship with financial performance as measured by Tobin's Q. This can be construed to mean that the presence of foreign directors contribute to better market performance.

The results of the multiple linear regressions point to the relationship between BOD characteristics and firm financial performance. The regressions indicate that the BOD characteristics together with firm asset structure and firm debt structure explain 65.4% of changes in ROE, 73.6% of the changes in ROA and 83.1% of the changes in Tobin's Q. However when BOD characteristics are considered on their own, they have a 48.6%, 53.4% and 61% effect on ROE, ROA and Tobin's Q respectively. Hence the study finds that BOD characteristics, together, have an effect on firm financial performance.

The linear regression coefficients indicate that BOD size has positive relationship with financial performance Even though the relationship is not significant, it shows that increasing the number of BOD members have a positive effect on performance especially as measured by ROE. As such firms with bigger BODs will perform better as supported by resource dependency theory. The maximum BOD size was found to be 10 and the average BOD size was 9 members. BOD diversity as represented by the percentage of women directors in the BOD was found to have an insignificant negative relationship with ROE but has an insignificant positive relationship with ROA and Tobin's Q.

The study found that BOD compensation, audit committee and CEO duality had no effect on firm financial performance as measured by ROE, ROA and Tobin's Q. However, the presence of audit committee and lack of CEO duality have been largely cited by regulators as good corporate governance practices and facilitate the BOD monitoring role.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This study examines the relationship between board characteristics (BOD size, BOD compensation, BOD independence, BOD diversity, CEO duality, Audit Committee) and firm financial performance (ROA, ROE, Tobins Q) based on the annual reports of companies listed in the manufacturing and allied sector of the Nairobi Stock Exchange for the period 2009 to 2012. This section provides the conclusion of the study, highlights the contribution of the study and the recommendation for future research.

5.2 Conclusions from the Study

The objective of this research was to examine the relationship between various BOD characteristics and firm financial performance in Kenya. With regards to the examination of the impact of board characteristics on financial performance, linear regression and Pearson's correlation analysis were used.

The study did not find any significant association between the BOD characteristics of BOD size, BOD compensation, audit committee, BOD diversity as represented by women directors and firm financial performance. According to the study the above BOD characteristics do not influence firm financial performance significantly.

The study found that BOD independence had a significant negative relationship with firm financial performance and that increasing the number of independent (non-executive) directors in the board would result in a decline in performance. The percentage of foreign directors in the board was found to have a significant positive relationship with Tobin's Q. This indicates that increasing the percentage of foreign directors in the board can be associated with increase in market performance by firms.

5.3 Limitations of the Study

There are numerous factors that affect firm financial performance and the study could not take all of them into consideration. The study was also limited to the extent that it concentrated on the manufacturing and allied sector of the listed firms in the NSE. The sector has nine firms of which data on two firms were not available. This limited the study to a total of seven firms for a period of four years.

The research was on several BOD characteristics and their effect on firm financial performance. This limited the study the focus was on several characteristics and as such limited data was collected and analyzed for each BOD characteristic.

5.4. Recommendations for Further Research

Future research should examine the relationship between specific BOD characteristics and firm financial performance over a longer period. A study covering longer period is necessary so as to have a better view on the relationship between BOD characteristics and financial performance. Also by concentrating on one BOD characteristic it is possible to get conclusive results on its effect on firm financial performance.

There is also need to replicate this research to the other sectors of the NSE so as to establish if the relationship between board characteristics and firm financial performance measures is the same for all sectors of the NSE.

REFERENCES

Aduda, J. (2011),The relationship between executive compensation and firm performance

in the Kenyan banking sector. *Journal of Accounting and Taxation*, 3(6), 130-139.

Aquila, F. (2009). Corporate governance: Don't rush reform. *Business Week,* December 9th 2009.

Azam, M. N., Hoque, M. Z. & Yeasmin, M. (2010), Audit Committee and Equity Return: The Case of Australian Firms, *International Review of Business Research Papers, 6(4), 202 – 208.*

Barnhart, S. M., & Rosenstein, S. (1994). Firm performance and board composition: Some new evidence. *Managerial and Decision Economics,* 15(4), 329-340.

Beasley, M.S. (1996), An Empirical Analysis of the Relation between the Board of Director Composition and Financial Statement Fraud. *The Accounting Review*, 71, 433-465.

Bennet, S.G. (1991), *The quest for value: The EVA management guide,* Harper Business,

New York.

Berglof, E., & Von Thadden, E. L. (1999). The Changing corporate governance paradigm: Implications for transition and developing countries. *Conference paper*, annual World Bank conference on development economics, Washington, DC.

Berle, A., & Means, G. (1932). *The modern corporation and private property*, Macmillan Publishing Co., New York.

Bhagat, S., & Black, B. (2002). The non-correlation between board independence and long-term firm performance. *Journal of Corporation Law*, 27(2), 231–274.

Bouaziz, Z. (2012), The Impact of the Presence of Audit Committees on the Financial Performance of Tunisian Companies. *International Journal of management & Business Studies*, 2(4), 57-64

Boyd, B. (1994). Board control and CEO compensation. *Strategic Management Journal*,

15(5), 335–344.

Boyd, B. (1995). CEO duality and firm performance: A contingency model. *Strategic Management Journal,* 16(4), 301–312.

Brickley, J., Coles, J., and Jarrell, G. (1997), Leadership Structure: Separating the CEO and Chairman of the Board. *Journal of Corporate Finance* 3, 189-220.

Carter, D. A., D'Souza, F., Simkins, B.J. & Simpson, W. G. (2010), The Gender and Ethnic Diversity of US Boards and Board Committees and Firm Financial Performance, *Corporate Governance: An International Review*. 18(5), 396–414.

Chakravarthy, B.S. (1986). Measuring strategic performance. *Strategic Management Journal*, 7(5), 437 – 487.

Charkham, J. (2005). *Keeping good company: A study of corporate governance ten years on.* Oxford University Press, Oxford.

Chatterjee, S. & Harrison, J. (2005). *Handbook of strategic management.* Blackwell Publishing, Malden, MA.

Chogii, R. (2009). Corporate governance and financial performance: An empirical test of competing governance theories on companies quoted on the Nairobi Stock Exchange. Unpublished MBA Project, University of Nairobi.

Combined Code of Corporate Governance (2003). United Kingdom.

Cordeiro, J., Veliyath, R., & Eramus, E. (2000). An empirical investigation of the determinants of outside director compensation. *Corporate Governance: An International Review*, 8(3), 268–279.

Crutchley, C., Garner, J., & Marshall, B. (2002). An examination of board stability and the long-term performance of initial public offerings. *Financial Management*, Autumn, 63–90.

Daily, C., Dalton, D., & Cannella, A. (2003). Corporate governance: Decades of dialogue and data. *Academy of Management Review*, 28(3), 371–382.

Dalton, D., & Daily, C. (2001). Director stock compensation: An invitation to a conspicuous conflict of interest? *Business Ethics*, 11(1), 89–109.

Dalton, C., Daily, C., Ellstrand, A., & Johnson, J. (1998). Meta-analytic reviews of board composition, leadership structure, and financial performance. *Strategic Management Journal*, 19(3), 269– 290.

Dalton, D., Daily, C., Johnson, J., & Ellstrand, A. (1999). Number of directors and financial performance: A Meta-analysis. *Academy of Management Journal*, 42(6), 674–686.

David F., George S., & David H. (2007). Corporate boards and company performance: Review of research in light of recent reforms. *Corporate Governance: An International Review*

Mugwe D. (2012). Mega corporate scandals erode Kenya's global competitiveness. *Business Daily*, Sept 9, 2012.

Davis, J., Schoorman, F., & Donaldson, L. (1997). Toward a stewardship theory of

management. *Academy of Management Review*, 22(1), 20-47.

De andres, P., Azofra, V., & Lopez, F. (2005). Corporate boards in OECD Countries: Size, composition, functioning, and effectiveness. *Corporate Governance: An International Review*, 13(2), 197– 210.

De Jong, A., Gispert, C., Kabir, R., & Renebook, L. (2002). International and firm performance: An empirical analysis. *Unpublished Workshop Working Paper,* University of Rotterdam.

Eccles, R. G. (1991), The performance measurement manifesto. *Harvard Business Review*, 1, 131-137.

Fama, E.F. (1980). Agency problems in the theory of the firm. *Journal of Political Economy,* 88, 288-367.

Fama, E., & Jensen, M. (1983). Separation of ownership and control. *Journal of Law and Economics,* 26, 301-324.

Finegold, D., Benson, G. S., & Hecht, David (2007). Corporate boards and company performance: Review of research in light of recent reforms. *Corporate governance: An International Review*, 15(5), 871-872.

Finkelstein, S. and Hambrick, D. (1996), Strategic Leadership: Top Executives and their

Effects on Organizations, West Publishing Company, Minneapolis/St. Paul, MN: 1-37.

Goodstein, J., Gautau, K., & Boeker, W. (1994). The effect of board size diversity on strategic change. *Strategic Management Journal*, 5(3) 241 – 250.

Goodstein, J., Gautam, K., and Boeker, W. (1994), The Effects of Board Size and Diversity on Strategic Change. *Strategic Management Journal*, 15, 241-250.

Grant, C., & Grant, G. (2008). Can regulations curb excessive executive pay? *Strategic Finance,* 9, 31-39.

Guest, P. M. (2009), The Impact of Board Size on Firm Performance: Evidence from the

UK. *The European Journal of Finance*, 15(4), 385-404.

Hambrick, D.C., & Finkelstein, S. (1995). The effect of ownership structure on conditions of the top: The case of CEO pay rises. *Strategic Management Journal*, 16(3), 175-193.

Harrington, D. R. & Wilson, B. D. (1989), *Corporate Financial Analysis*, 3rd Edition, Irwin Inc., Boston.

Hayes R. & Lee, D. (1997). Profitability: A comparison of best and worst boards of

Directors. *Working Paper*, California State University, Los Angeles.

Hayward, M. and Hambrick, D. (1997), Explaining the Premiums Paid for Large Acquisitions: Evidence of CEO Hubris. *Administrative Science Quarterly*, 42, 103-127.

Hempel, P., & Fay, C. (1994). Outside director compensation and firm performance. *Human Resource Management*, 33(1), 111–133.

Hermalin, B., & Weisbach, M. (1991). The effects of board composition and direct incentives on firm performance. *Financial Management*, 20(4), 101–112.

Jensen, M.C., & Meckling, W. (1976). Theory of the firm: Managerial behaviour, agency costs & ownership structure. *Journal of Financial Economics*, 3, 305-360.

Jensen, M. C. (1993). The modern industrial revolution, exit and the failure of internal control systems. *Journal of Finance*, 48(3), 831-880

Jensen, M. & Murphy, K. (1990), Performance Pay and Top Management Incentives. *Journal of Political Economy*, 98, 225-264.

Jovita, M. (2010), A study of the relationship between board independence and bank performance: evidence from commercial banks in Kenya. Unpublished MBA Proposal, University of Nairobi.

Kaplan R.S. & Norton D. P. (1992). Balanced Scorecard: Measures that drive performance, *Harvard Business Review*, Boston, Jan/Feb, 71-79.

Kaplan Financial Knowledge Bank (2013). Performance management. Retrieved from http://ekfknowledge.Kaplan.co.uk

Kitetei E. M. (2011). The effect of corporate governance on the financial performance of deposit taking micro finance institutions in Kenya. Unpublished MBA Project, University of Nairobi

Krishnaswamy, K.M., Sivakumar, A. I., & Mathirajan, M. (2006). *Management research*

methodology: Intergration of principles, methods and techniques, Dorlind Kindersley

(India) Pyt Ltd, India.

Kuratko, D. F., & Morris, M. H. (2003). *Corporate entrepreneurship: The dynamic strategy for 21st century organizations.* Emerald Group Publishing Ltd.

Langat, R. K. (2006). Corporate governance structures and performance in firms quoted in Nairobi Stock Exchange, Unpublished MBA Project, University of Nairobi.

Letting', N. K. (2011), Board of Directors' Attributes, Strategic Decision-Making and

Corporate Performance of Firms Listed on the Nairobi Stock Exchange. Unpublished
PHD Thesis, University of Nairobi.

Lipton, M. & Lorsch, J. W. (1992), A modest proposal for improved corporate governance, *Business Lawyer* 48(1), 59- 77.

Maina, A. W. (2005), Board Composition And Performance In Quoted Companies In Kenya. Unpublished MBA Project, University of Nairobi.

Marimuthu, M. (2009), Ethnic and Gender Diversity in Boards of Directors and Their Relevance to Financial Performance of Malaysian Companies. *Journal of Sustainable*
Development, 2 (3), 139-148.

Mangenelli, R. L., & Klein, M. M. (1994). The reengineering handbook: A step-by step guide to business transformation. New York, AMACOM

Miring'u, A. N. (2009). An analysis of the effect of corporate governance on performance of commercial state corporations in Kenya. Unpublished MBA Project, University of Nairobi.

Mishra, S. C., & Nielsen, J. F. (2000). Board independence and compensation policies in large bank holding companies. *Financial Management*, 29 (3), 51-77.

Mululu, A. K. (2005). The relationship between board activity and financial performance of firms quoted at Nairobi Stock Exchange. Unpublished MBA Project, University of Nairobi.

Muriithi E. (2011). Relationship between corporate governance practices and financial performance of investment banks in Kenya. Unpublished MBA Project, University of
Nairobi.

Ng'ang'a, P.M. (2007). Compliance with CMA corporate guidelines: A survey of companies listed at the Nairobi Stock Exchange. Unpublished MBA Project, University of Nairobi.

Njagi, S. N. (2012),The impact of corporate governance practices on firms financial performance: a case of sugar industry in Kenya, MST Thesis, Kenyattta University.

Okiro, K.O. (2006). The relationship between board size and board composition and firm
performance; A study of quoted companies at the NSE. Unpublished MBA Project, University of Nairobi

Organization for Economic Cooperation and Development (2004). Principles of

Corporate Governance

Pearce, J., & Zahra, S. (1992). Board composition from a strategic contingency Perspective. *Journal of Management Studies*, 29(4), 411–438.

Peng, M. (2004). Outside directors and firm performance during institutional transitions (in China). *Strategic Management Journal*, 25 (5), 453–471.

Pfeffer, J. (1972). Size and composition of corporate boards of directors: The organization and its environment. *Administrative Science Quarterly*, 17, 218-229.

Raymond K.V., Paul M., & Jaeyoung K. (2009). *Understanding governance and corporate boards: Is theory a problem?* University of Albany, New York, US

Rechner, P.L. & Dalton, D. R. (1991), CEO Duality and Organizational Performance: A Longitudinal Analysis. *Strategic Management Journal*, 12 (2),155–160.

Roberson, Q., and Park, H. (2007), Examining the Link Between Diversity and Firm Performance: The Effects of Diversity Reputation and Leader Racial Diversity. *Group & Organization Management*, 32, 548-568.

Rose, C. (2007), Does Female Board Representation Influence Firm Performance? The Danish Evidence. *Corporate Governance*, Vol. 15 (2), 2007, 404-413.

Sarbanes–Oxley Act (2002). United States of America

Shleifer, A., & Vishny, R.W. (1997). A survey of corporate governance. *Journal of Finance*, 52(2), 737-783.

Smith, A. (1776). *The Wealth of Nations*

Ulrich, D., & Barney, J. (1984). Perspectives in organizations: Resource dependency, efficiency, and population. *Academy of Management Review*, 9(3), 471-484.

Waddock, S., & Graves, S. (1997). The corporate social performance-financial performance link. *Strategic Management Journal*, 18(4), 303-319.

Wieland, J. (2005). Corporate governance, values management, and standards: A European perspective. *Business Society*; 44

Williamson, O. E. (2009). Transaction cost economics: The natural progression. *Prize Lecture*, University of California, Berkeley, CA, U.S.A.

Wintoki, J. (2007) Endogeneity and the dynamics of corporate governance, Working paper, University of Georgia.

Wheelen, T.L., Hunger D.J. (1995), *Strategic management and business policy*, 5th Edition, Prentice-Hall, Upper Saddle River.

Yermack, D. (1996). Higher market valuations for firms with a small board of Directors.

Journal of Financial Economics, 40(2), 185–211.

Zahra, S., & Pearce, J. (1989). Boards of directors and corporate financial performance: A review and integrative model. *Journal of Management*, 15(2), 291-334.

Zajac, E., & Westphal, J. (1996). Director reputation, CEO-board power, and the dynamics of board interlocks. *Administrative Science Quarterly,* 41(3), 507-529.

APPENDICES

Appendix 1: Research Population

1. East African Breweries Ltd.
2. Mumias Sugar Company Ltd.
3. BAT Kenya Ltd.
4. BOC Kenya Ltd.
5. Eveready East Africa Ltd.
6. Carbacid Investments Ltd.
7. Unga Group Ltd.
8. A. Baumann Ltd.
9. Kenya Orchards Ltd.

Appendix 2: Return on Equity and Dependent Variables Data

		ROE	BODSZ	BODIN	BODDIW	BODDIF	BODCO	BODAC	BCEOD	FASSR	FLEVR
2009	EABL	51	12	58	17	25	2	1	2	54	35
2009	Mumias	12	12	92	17	0	5	1	2	71	43
2009	BOC	15	8	75	25	50	8	1	2	51	23
2009	Eveready	11	8	63	25	25	77	1	2	20	68
2009	Carbacid	31	5	60	0	20	1	1	2	49	15
2009	BAT	45	11	55	9	36	7	1	2	60	56
2009	Unga	8	9	67	11	22	6	1	2	31	43
2010	EABL	52	12	58	25	33	1	1	2	55	38
2010	Mumias	20	12	92	17	0	3	1	2	65	40
2010	BOC	8	7	86	29	43	18	1	2	55	26
2010	Eveready	4	8	63	25	25	235	1	2	19	74
2010	Carbacid	34	5	60	0	20	2	1	2	75	14
2010	BAT	53	10	70	20	20	5	1	2	57	54
2010	Unga	10	9	67	11	22	5	1	2	32	34
2011	EABL	46	12	58	25	33	1	1	2	67	46
2011	Mumias	18	12	92	17	0	2	1	2	72	38
2011	BOC	16	7	86	29	43	14	1	2	51	27
2011	Eveready	-62	7	86	43	29	-16	1	2	28	73
2011	Carbacid	26	5	60	0	20	3	1	2	77	16
2011	BAT	70	10	70	20	20	2	1	2	49	53
2011	Unga	17	9	67	11	22	2	1	2	28	34
2012	EABL	175	12	58	42	58	1	1	2	67	84
2012	Mumias	11	12	92	17	0	1	1	2	74	43
2012	BOC	20	8	75	25	38	11	1	2	45	27
2012	Eveready	20	7	86	43	29	30	1	2	24	70
2012	Carbacid	32	5	60	0	20	2	1	2	68	18
2012	BAT	67	11	64	18	18	2	1	2	53	53
2012	Unga	13	9	67	11	22	3	1	2	28	38

Appendix 3: Return on Assets and Dependent Variables Data

		ROA	BODSZ	BODIN	BODDIW	BODDIF	BODCO	BODAC	BCEOD	FASSR	FLEVR
2009	EABL	33	12	58	17	25	2	1	2	54	35
2009	Mumias	7	12	92	17	0	5	1	2	71	43
2009	BOC	12	8	75	25	50	8	1	2	51	23
2009	Eveready	4	8	63	25	25	77	1	2	20	68
2009	Carbacid	27	5	60	0	20	1	1	2	49	15
2009	BAT	20	11	55	9	36	7	1	2	60	56
2009	Unga	5	9	67	11	22	6	1	2	31	43
2010	EABL	33	12	58	25	33	1	1	2	55	38
2010	Mumias	12	12	92	17	0	3	1	2	65	40
2010	BOC	6	7	86	29	43	18	1	2	55	26
2010	Eveready	1	8	63	25	25	235	1	2	19	74
2010	Carbacid	29	5	60	0	20	2	1	2	75	14
2010	BAT	24	10	70	20	20	5	1	2	57	54
2010	Unga	7	9	67	11	22	5	1	2	32	34
2011	EABL	25	12	58	25	33	1	1	2	67	46
2011	Mumias	11	12	92	17	0	2	1	2	72	38
2011	BOC	12	7	86	29	43	14	1	2	51	27
2011	Eveready	-17	7	86	43	29	-16	1	2	28	73
2011	Carbacid	22	5	60	0	20	3	1	2	77	16
2011	BAT	33	10	70	20	20	2	1	2	49	53
2011	Unga	11	9	67	11	22	2	1	2	28	34
2012	EABL	28	12	58	42	58	1	1	2	67	84
2012	Mumias	6	12	92	17	0	1	1	2	74	43
2012	BOC	14	8	75	25	38	11	1	2	45	27
2012	Eveready	6	7	86	43	29	30	1	2	24	70
2012	Carbacid	27	5	60	0	20	2	1	2	68	18
2012	BAT	31	11	64	18	18	2	1	2	53	53
2012	Unga	8	9	67	11	22	3	1	2	28	38

Appendix 4: Tobin's Q and Dependent Variables Data

		TOBQ	BODSZ	BODIN	BODDIW	BODDIF	BODCO	BODAC	BCEOD	FASSR	FLEVR
2009	EABL	4.57	12	58	17	25	2	1	2	54	35
2009	Mumias	0.76	12	92	17	0	5	1	2	71	43
2009	BOC	1.81	8	75	25	50	8	1	2	51	23
2009	Eveready	1.54	8	63	25	25	77	1	2	20	68
2009	Carbacid	2.67	5	60	0	20	1	1	2	49	15
2009	BAT	3.01	11	55	9	36	7	1	2	60	56
2009	Unga	0.22	9	67	11	22	6	1	2	31	43
2010	EABL	5.94	12	58	25	33	1	1	2	55	38
2010	Mumias	0.98	12	92	17	0	3	1	2	65	40
2010	BOC	1.71	7	86	29	43	18	1	2	55	26
2010	Eveready	1.56	8	63	25	25	235	1	2	19	74
2010	Carbacid	3.29	5	60	0	20	2	1	2	75	14
2010	BAT	3.85	10	70	20	20	5	1	2	57	54
2010	Unga	0.22	9	67	11	22	5	1	2	32	34
2011	EABL	4	12	58	25	33	1	1	2	67	46
2011	Mumias	0.4	12	92	17	0	2	1	2	72	38
2011	BOC	1.44	7	86	29	43	14	1	2	51	27
2011	Eveready	1	7	86	43	29	-16	1	2	28	73
2011	Carbacid	1.84	5	60	0	20	3	1	2	77	16
2011	BAT	2.93	10	70	20	20	2	1	2	49	53
2011	Unga	0.17	9	67	11	22	2	1	2	28	34
2012	EABL	6.5	12	58	42	58	1	1	2	67	84
2012	Mumias	0.34	12	92	17	0	1	1	2	74	43
2012	BOC	1.32	8	75	25	38	11	1	2	45	27
2012	Eveready	0.95	7	86	43	29	30	1	2	24	70
2012	Carbacid	2.23	5	60	0	20	2	1	2	68	18
2012	BAT	5.4	11	64	18	18	2	1	2	53	53
2012	Unga	0.22	9	67	11	22	3	1	2	28	38

Appendix 5: Data Collection Sheet

DATA COLLECTION FORM

	Data Collection Form No.	
	Company Name	
	Financial Year Ended	

A Data from Financial Statement

1	Net Income		KES
2	Current Assets		KES
3	Non Current Assets		KES
4	Total Assets		KES
5	Shareholders' Equity		KES
6	Current Liabilities		KES
7	Non Current Liabilities		
8	Debt (Total Liabilities)		KES
9	Net Current Assets		
10	Asset Structure = (Non Current Assets / Total Assets) X 100%		%
11	Debt Structure =(Debt /Total Assets)*100%		%
12	Return of Equity (Net Income / Shareholders Equity)		%
13	Return on Assets (Net Invome / Total Assets)		%
14	Number of Issued Shares		
15	Net Assets (Net Current Assets + Non Current Assets)		KES
16	Turnover		KES

B **Data from NSE Securities Market Report**

17	Share Price as at end of year		KES
18	Market Value (Share Price X No. of Shares)		KES
19	Tobin's Q (Market value / Net Assets)		

C **Data from Annual Report / CMA Library**

20	Number of Directors		
21(a)	Directors Remuneration		KES
21(b)	(Directors Remuneration / Net Income) X 100		%
22 (a)	Number of Women Directors		
22(b)	Number of Foreign Directors		
22(c)	(Number of Women / Total Number of Directors) X 100		%
22(d)	(Number of Foreign Directors / Total Number of Directors) X 100		%
23	Existence of Audit Committee (1=Yes, 2=No)		
24(a)	Number of Independent/ Non-Executive Directors		
25(b)	(Number of Independent Directors / Total Number of Directors) X 100		%
26	Existence of CEO Duality (1=Yes, 2=No)		