# EFFECT OF BOARD DIVERSITY AND CHIEF EXECUTIVE OFFICER POWER ON DIVIDEND POLICY IN LISTED COMPANIES IN NAIROBI SECURITIES EXCHANGE, KENYA

 $\mathbf{BY}$ 

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**MOI UNIVERSITY** 

# **DECLARATION**

# **Declaration by the Candidate**

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# **DEDICATION**

To my wife Celestine Joan Onyango for her encouragement and support; my Children Zipporah, Nicholas, Whitney and Glenn who were a strong inspiration and to my father and Mother for providing a great foundation in my formative years.

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#### **ABSTRACT**

Company's manager's encounters challenges originating from insider administrator's incapability to productively accord stewardship. The concern's proprietors hence, have to develop methods that assure that their interest are shielded. In contemporary business's proprietors embrace instruments like diversity of the board to ease against executive's inability from acting in their stake. The aim of the study assessed the effect of diversity of the supreme entities governance organ and chief executive officer power on policy on dividends among corporations enlisted in Nairobi Securities Exchange. In the prior period, majority of companies in emerging nations suffered volatile dividend payment, hence the necessity to ascertain if diversity of the board could address the prevailing dividend payment condition. This research examined how diversity of the board in form of age, foreign diversity, professional expertise and gender influence dividend policy in listed companies on the NSE. The investigation was steered by resource dependency, upper echelon, agency, power circulation and signaling theories. The study utilized explanatory research design. Secondary data from yearly reports of companies was gathered by means of document analysis schedule. Analysis of data was performed making use of descriptive statistics like the standard deviation, median and mean and fixed effect multiple regression manipulations were performed to assess impact amid diversity of the board and policy on dividends in organizations yearly reports. This research helped in outlining the effects of diversity of boards on policy on dividends in evolving nations at the same time evaluating if diversity of the board could perceived a solution to a puzzle on policy on dividends in enterprises. This research also contributed new knowledge on link amongst board members diversity and dividend policy as moderated by chief executive officer power. The regression results showed that foreign diversity ( $\beta$ = 0.396, p = 0.126), professional expertise ( $\beta = 0.226$ , p = 0.490), age ( $\beta = 0.005$ , p = 0.634) and gender diversities ( $\beta = -$ 0.031, p = 0.724) did not exhibit a strong direct relationship with dividend policy. Although foreign diversity and diversity of gender had effect on dividend policy of enterprises. The moderation effect reveal that chief executive officer power effectively moderated the association between foreign diversity ( $\beta$  =292.03, p = 0.099) and gender diversity ( $\beta$  = 128.8, p = .07) and dividend policy of firms. CEO power did not significantly moderate the relationship between professional expertise ( $\beta = -0.135.31$ , p = 0.515) and age diversity ( $\beta$ = 11.231, p = 0.131) and dividend policy. The outputs too indicate that diversity of gender was the greatest significant element which influenced decisions on dividend policy both before and after moderation among Kenyan firms. The study makes the following recommendations; developers of policies to develop guidelines that improve board diversity among corporations because board diversity presents immense gains to corporation's investors through reduction of agency hitches of free cash flows therefore improve disbursements to investors and minimize misallocation risks of surplus funds by corporate leaders, additional research could be performed on link among board diversity and dividend policy amongst SME's, privately owned corporations both unlisted and listed enterprises utilizing comparable variables and a lengthier time frame for a similar research to establish if optimum outcomes could be attained. The study enriches the body of knowledge on board diversity, chief executive officer power and policy on dividend frameworks by providing empirical evidence on their relationships, contributes gainfully to the trade by examining whether board diversity complies with existing policy framework on selection of members of the board therefore verdicts gives comprehensions on current practices in Kenya and further, presents the business case for board diversity by indicating which diversity variables are most important to the firms shareholders.

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#### LIST OF ABREVIATIONS

**ACCA** Association of Chartered Certified Accountants

**ADF** Augmented Dickey-Fuller

**ARMA** Autoregressive - Moving - Average

**ASA** Term for Norwegian public limited firm

**CA** Chartered Accountants

**CalPERS** California Public Employees' Retirement System

**CEO** Chief Executive Officer

**CFA** Certified Financial Analyst

**CFO** Chief Finance Officer

**CMA** Capital Market Authority

**CPA** Certified Public Accountants

LM Lagrange Multiplier

**NSE** Nairobi Securities Exchange

**OBS** Observation

**SME** Small and Micro Enterprises

**SOX** Sarbanes—Oxley Act

**VIF** Variance Inflation Factor

#### **OPERATIONAL DEFINITION OF TERMS**

**Board Diversity:** This are a variety inherent in the board's constitution

and it can be measured in various dimensions such

as age, nationality, gender, foreign diversity,

industrial experience, and organizational

membership (Campbell & Minyuez-Vera, 2008) and

(Walt & Ingley, 2003).

Board Professional Expertise Diversity: This refers to the possession of different

qualifications either academics or professional and

experiences/skills by board members which are

relevant to a particular industry where the board

members serve (Guner, Malmendier, & Tate, 2008).

Chief Executive Officer Power: This refers to a situation where the Chief Executive

Officer (CEO) is the only insider on the board of

directors (Adams, Almeida, & Ferreiva, 2005).

**Corporate Size:** Refers to total assets disclosed in the organization's

annual reports (Burak & Morante, 2007).

**Dividend Policy:** Refers to the division of returns between payment to

shareholders and reinvestment in the company

(Kumar & Sharma, 2004).

**Insider Director:** This means a member of the board who is an

employee of the organization or institution under the

study (Francis, Hasan, & Wu (2012).

**Investor:** An individual, a group, company, an entity that puts

money in a financial scheme or asset with a view of

a financial return (Pandey, 2010)

#### **CHAPTER ONE**

#### INTRODUCTION

#### 1.1 Overview

The background of the research, problem statement, research objectives, and research hypothesis are examined in this chapter. This section also outlines significance and study scope.

#### 1.2 Background of the Study

The policy on dividend has been, and is still a puzzle since the Modigliani and Miller's seminal studies of 1958 and 1961 (Black, 1976). Black (1976), revealed that in a frictionless economy, when the policy on investment of a company is held constant, its payouts on dividend contributes to inferior capital gains and retained earnings and vice versa, leaving cumulative wealth of the stockholders constant. Despite these forecast firms follow exceptionally intentional dividend payout strategies which raise a puzzle on how companies choose their dividend policies. A Study carried out in both the developed and emerging economies like the United Kingdom, United States and other countries world over indicate that firms depending on their countries of origin's legal regimes develop dividend policies that dictate dividend payout to investors (Rafael, Florencio, Andrei, & Robert, 2000). (Rafael, Florencio, Andrei, & Robert, 2000), further postulate that common law countries have better shareholders protection therefore disburse higher dividend to stockholders than the financiers in the civil law nations whose legal systems are fragile. It is therefore, necessary for the corporations to device means through which investors can be mitigated against unfair practices by firm managers. Empirical studies have establish that payout policies on dividend differ across legal regimes in a manner compatible with specific category of agency theory of dividends. The researchers indicate that in common but not civil law nation's fast

growing corporations create lesser disbursement on dividend than low evolving organizations. This is found to support the agency theory in which shareholders in countries with upright legal safeguard utilize their legitimate authorities to obtain dividends from enterprises when plough backs chances are inferior.

In an investigation performed on whether organizations in rising and evolving markets pursue different policies o dividend from companies in the USA, it was establish that corporations in developing marketplaces exhibits similar dividend behavior to entities in the USA in the logic that they are influenced by profitability, market to book ratio and volume of debt (Varouj, Laurence, & Sean, 2003). The study further indicated that empirical dividend policy equations are structurally different between emerging market and in the US signaling distinct sensitivities to the financial variables thus emerging market organizations are influenced by their asset mix; that is proportion of long term liability to aggregate assets. Omneya, Ahmed, & Sabri (2008), in their research on the association between composition of the board, ownership configuration and policy on dividend in Egypt examined the applicability of developed dividend models in a developing market. The study established a strong bearing for the signaling model and a partial support for the agency theory on the governance factors.

Research on diversity of the board in the established economies show that diversity is a subject that has not been adopted by companies across the globe therefore certain states have established instruments like cultural, legal and institutional, so as mitigate the trouble (Trond, Steen, & Lars, 2006). The research additionally alludes that diversity of the board equity dispute in Norway developed to a statute and Norwegian public corporations referred to the "ASA"-companies, were obligated to comply with the board representation of 40% as the lowest percentage from both gender before the close of 2006. A publicly owned enterprise that could not attain the conditions within

the stipulated time was vehemently deregistered. A comparable law had been proposed in Sweden but a collapse of regime in 2006 resulted in its withdrawal. In Kenya, the Capital Market Authority Act, 2002 necessitates that the recommending committee of the board considers a mix of expertise and skills, representation of gender, national outlook and must not be judged to constitute single or narrow community interest.

Board diversity therefore as a governance mechanism has been viewed as a remedy to dividend policy where enterprises are susceptible to agency problems. Investigations designate that diversified boards are highly expected to disburse dividends and incline to distribute higher dividends than non-diverse boards (Soku, Kiyoung, & Young, 2016). Diverse boards help to alleviate the free cash flow problem hence improves the monitoring role of directors and board independence to the advantage of stockholders. Studies have examined board of directors diversity in relation to gender, foreign diversity, age of board members, and skills and expertise among other variables independently (Carter, D'souza, Sinkins, & Simpson, 2010); (Adams & Ferreira, 2009); (Hagendorff & Keasey, 2008); (Campbell & Minyuez-Vera, 2008) and (Marimuthu & Kolardaisamy, 2009). These studies have had mixed outcomes between the examined variables. For example; Carter, D'souza, Sinkins, & Simpson (2010), determined that there was insignificant association amid foreign diversity or diversity of gender and financial performance of organizations. In (Adams & Ferreira, 2009), study established that gender diversity could result in the reduction of firm value in well governed entities.

Hagendorff & Keasey (2008), alluded that positive declarations of earnings to mergers authorized by diverse boards in relation to occupational background. Further, the tenure and age diversity are linked to wealth losses embodying acquirement declarations while diversity of gender does not result in quantifiable value effects (Hagendorff & Keasey,

2008). The study by Hagendorff & Keasey (2008), also indicate that boards with high banking expertise are poor monitors of managers hence the outputs did not support industry specific representations on the board, although demonstrate that occupational diversity could play a significant role in shareholders protection. Campbell & Minyuez-Vera (2008), posited that diversity of gender had optimistic outcome on value of the firm and reverse casual connection was insignificant. On the other hand, Marimuthu & Kolardaisamy (2009), alluded that the outcomes on the link amongst demographic diversity represented by diversity of gender; foreign diversity besides firm financial performance were relatively inconsistent to demonstrate relevancy of diversity amongst boards. The study was necessary since it would provide informative insights that enable stakeholders i.e. shareholders, potential investors, industry players and governments discover grounds/opportunities that may require policy formulation and/or legislation, to enhance best practice and governance mechanisms amongest business entities.

#### 1.3 Statement of the Problem

Most research on dividend policy concentrated on the association amid dividend policy and governance of corporations. These studies by Kim & Lee (2008), Miller & Triana (2009), and Carter, D'souza, Sinkins, & Simpson (2010), have made specific reference to board characteristics, possession arrangement, and board demographic characteristics as constructs of corporate governance. Varouj, Laurence, & Sean (2003), notes that studies on policy on dividend have been done on both cutting-edge and emerging markets whose results posit an unstable dividend payment in developing markets, for example; in India, Pakistan, Zimbabwe, Thailand, Korea, Jordan, Turkey and Malaysia, than in developed economies. In Kenya, Odawo & Ntoiti (2015) and Kadu & Oluoch (2018), alluded that dividend payout policy present an unstable dividend payments as aresult of poor and inconsistent performance and therefore,

corporations need to engage in more profitable ventures in order to maximise returns for investors/shareholders stake hence the need to put in place mechanisms to ensure the free cash flow and agency problems of dividend policy is managed optimally. Empirical research indicates that very few studies have examined board diversity as an elucidation to the free cash flow hitches of dividend policy (Soku, Kiyoung, & Young, 2016). Studies on dividend policy have also generated mixed results with some in backing of the information content of dividends while others did not support the information content of dividends concept (Baker, Powell, & Veit (2002), Jang-Chul, Pornsit, & Young (2011) and Abdelaziz, Narjess, & Fernando (2011)).

The shareholders are endangered as their interests are not likely to be protected by the corporate managers as they may engage in activities that will not generate returns for business owners. Therefore, corporate owners have to devise means of mitigating against unfair practices by management. Basil & Khaled (2009) and Ching-Shang, Chun-Fan, & Szu-Hsien (2009), allude that studies in both developed and developing markets indicate that corporate governance techniques can be possible remedies to agency problems of dividend policy. Vineeta (2011), in a study on directors independence and the susceptibility to disburse dividends recommended an examination of independent director's features that included the gender, age, education, professional qualifications and industry experience which constitutes constructs of this study.

Majority of investigations on board diversity and policy on dividend have been done in the developed economies with direct link between individual components of diversity of the board and dividend policy. This investigation therefore, introduces Chief Executive Officer (CEO) power as a moderator in the link between diversity of the board and policy on dividend in an evolving economy. The study has given new insights to the research findings since a number of variables were tested as a group and moderated by the CEO power. This study therefore attempts to investigate corporate governance mechanisms in terms of board diversity with an aim of determining whether board member's diversity has influence on dividend policies of firms.

## 1.4 Research Objectives

#### 1.4.1 General objective

To establish the moderating effect of chief executive officer power on the relationship between board diversity and dividend policy in listed companies in Nairobi Securities Exchange, Kenya.

## 1.4.2 Specific objectives

- To determine the association between foreign diversity and policy on dividend in Kenya.
- ii. To evaluate the association between professional expertise diversity and policy on dividend in Kenya.
- iii. To establish the association between diversity of gender and policy on dividend in Kenya.
- iv. To examine the association between age diversity and policy on dividend in Kenya.
- v. To determine the extent to which Chief Executive Officer power moderates the association between foreign diversity and policy on dividend in Kenya.
- vi. To determine the extent to which Chief Executive Officer power moderates the association between professional expertise diversity and policy on dividend in Kenya.

- vii. To establish the extent to which Chief Executive Officer power moderates the association between gender diversity and policy on dividend in Kenya.
- viii. To examine the extent to which Chief Executive Officer power moderates the association between diversity of age and policy on dividend in Kenya.

# 1.5 Research Hypotheses

- **Ho**<sub>1</sub> There is no significant association between foreign diversity and policy on dividend in Kenya.
- **Ho<sub>2</sub>** There is no significant association between professional expertise diversity and policy on dividend in Kenya.
- **Ho3** There is no significant association between diversity of gender and policy on dividend in Kenya.
- **Ho4** There is no significant relationship between diversity of age and policy on dividend in Kenya.
- **Hos** Chief Executive Officer Power does not moderate the association between foreign diversity and policy on dividend in Kenya.
- Ho<sub>6</sub> Chief Executive Officer Power does not moderate the association between professional expertise diversity and policy on dividend in Kenya.
- **Ho7** Chief Executive Officer Power does not moderate the association between diversity of gender and policy on dividend in Kenya.
- **Hos** Chief Executive Officer Power does not moderate the association between diversity of age and policy on dividend in Kenya.

# 1.6 Significance of the Study

The examination is dynamic for the following reasons; first, the research contributes to new knowledge in financial management theories on the role that diversity of the board plays on policy on dividend decisions in emerging markets. This study is of great benefits to students and scholars of financial management in institutions of higher learning and research centers. The study also introduced CEO Power as a moderator in the research and therefore, enhanced knowledge gap in terms of its role in financial management survey on dividend payout policy. Second, since dividend policy decisions are still a puzzle globally, researchers and policy makers are interested in new knowledge contributions that helps to unlock the mystery. This study therefore shed more light on whether board diversity could be a remedy to dividend policy decisions. Thirdly, the study is also important to the firms, boards of corporations, managers, investors and the general public since it will enable all the stakeholders come up with remedies that would enhance organizations performance and compliance with the existing regulatory requirements. This will promote growth in returns hence spearhead increased dividend payouts and enhanced benefits to the investors and managers due to improved performance (profitability). Lastly, the study is instrumental in ensuring that regulatory bodies like CMA are updated with the current prevailing practices and implementation status of the legislation in force therefore, help in ensuring that the weaker links existing are enforced and strengthened. This will enrich benefits both to the concerned entities and the stakeholders particularly investors.

#### 1.7 Scope of the Study

The research on effect of board diversity and CEO power on dividend policy in Kenya was carried out on companies registered in the NSE. The research was limited to organizations listed in the Nairobi Securities Exchange for a time frame of seven years, between 2009 and 2015 whose annual reports and financial statements audited by independent auditors were available at the Capital Market Authority library. The annual reports and financial statements audited by independent auditors were chosen because

they could be easily accessed due to a requirement by statute for all registered corporations to file returns every end of financial year with the Capital Market Authority and Nairobi Securities Exchange. Annual reports also exhibit a degree of reliability which is not linked with other media of transmission since auditors must read such material (Kent & Ung, 2003). The NSE had 64 listed enterprises but the study investigated 49 companies whose reports were available at the CMA library and met the entire criteria for the research. The examined entities operated across and within Kenyan boundaries. Data gathered from the yearly reports and financial statements were secondary in nature and explanatory research design was utilized for the study. The census method with inclusion and exclusion procedure was utilized to gather the statistics for the research.

This research evaluated firm's board diversity in form of foreign diversity, gender, Professional expertise, and age in relation to dividend policy. The also examined CEO Power as a moderator of the study to the independent and dependent variables. The research investigated study variables in consideration of the theories of agency, signaling, upper echelon, theory of resource dependency and power circulation theory. Panel data was analyzed utilizing fixed effect regression model to give inference on the study.

#### **CHAPTER TWO**

#### LITERATURE REVIEW

#### 2.1 Introduction

This episode discusses related works to the research. It reviews concepts related to this investigation. The literature is organized according to themes that were covered in the study including concepts and theories of dividend policy, board diversity and CEO power. It also reviews literature on the study variables and presents the theoretical framework of the research.

# 2.2 The Concept of Dividend Policy

Dividend policy denotes the practice that entity managers charts in developing payout decisions on dividend or in other terms, magnitude and shape of cash allocations over a period to investors (Lease, 2000). (Allen & Michaely, 2002), also defines dividend policy as the decision concerning amount of dividend payout, which is, the proportion of earnings shared to the stockholders in form of dividends. A policy on dividend clarifies the amount of fund to be disbursed to each stockholder as well as the sum to be reserved for reinvestment in the financial market. A main purpose of any company's policy on dividend is to hang onto leading and stable in maximizing stockholders value as the gotten yield from ventures.

The main essential objective of contemporary business bodies is value maximization of investor's wealth through three key aims; the financial decisions, the investment function and the facet of dividend policy that involves the aggregate of payout as dividends and sum retained for reinvestment (Pandey, 2010). Executives pursues dividend policies to uphold the share price as a measure of corporation's performance. A ground breaking research carried out on dividends policy and signaling was performed by (Lintner, 1956), the research was the greatest animated literature in

corporate finance. According to (Lintner, 1956), who was the first to diagnose the information content of dividends, recognized that executives commonly in creating decisions on dividend policy looked at the earning of the current period to target degree of dividend payout to be disbursed to investors. Dividend policy is a corporation's document regulating on measurement of dividend and disbursement.

Researchers in corporate finance has been puzzled by dividend behavior of firms since the subject of dividend policy creating a huge volume of publications of its own and a few of theories has been advanced to solve ingrained payment of dividend paradox to shareholders (Frankfurter & Philippatos, 1992). Despite of this, much remains an explained over the dividends role (Weston, 1981). Black (1976), allude to lack of agreement by indicating that the tougher we view the policy on dividend depiction, the greater it looks similar to a puzzle, with sections that may not join together. Many theories examine agents as logical and dividend payouts either act as an effective mechanism for solving problems of agency or as a signaling mechanism for alleviating information asymmetry challenges. Frankfurter & Wood (2006), Baker (2009) and DeAngelo, DeAngelo, & Skinner (2009) delivered a review on this philosophies associated empirical realities. Allen & Michael (2003) and Frankfurter & Wood (2006), state that philosophies founded on signaling and agency are incompatible with practical confirmation and that the cross-examination of why organizations pay dividends remain a dilemma. DeAngelo, DeAngelo, & Skinner (2009), postulate that asymmetric statistics could provide a reason for the dividend situation.

Policy on dividend decides the distribution of returns amid payment to shareholders and plough-back in the organization. The executive managers have to distribute returns to dividend or retain profits. Corporations growth is significantly financed by retained earnings hence corporate growth enhance dividends. Black (1976), argue that an

organization does not pay dividend use the retained earnings as a capital source for venture thus cutting on costs of raising funds externally since retained earnings attracts lowest cost. Jensen (1996), states that maintaining payments of dividend helps to distribute money which may else be misused in investments that does not maximize value hence minimizing extend of managers overinvestment. In Rozeff (1982), modelled an optimal dividend payout policy as the output of tradeoff among the transaction cost and equity agency cost. Compatible with such trade-off model Rozeff accounts for proof of a positive association amongst payouts of dividend and a set of variables proxying for transaction costs and agency in an enormous sample made up of one thousand US enterprises for the timeframe between 1974 and 1980. A further study on dividend payouts policy also reveals consistent outputs with dividend payouts policy functioning as an enterprise monitoring mechanism and with substitution effects between the two control vehicles; leverage and managerial ownership and dividend payments (Crutchley & Hansen, 1989). (Damodaran, 2001), alludes that dividend policy of an enterprise could be measured utilizing two appropriate approaches, payout ratio of dividend and dividend yield. Modifications in these two financial measures deliver evidence indicators relating to hazards experienced by businesses and upcoming growing earnings of organizations. Other than dividend policy pointers, financiers also see other financial pointers to make resolutions relating to businesses proficiencies like retained earnings, earnings per share, book value, corporate size amid others. This study adopted the measure of dividend policy using dividend per share divided by market price per share used by (Omneya, Ahmed, & Sabri, 2008), (Basil & Khaled, 2009) and (Soku, Kiyoung, & Young, 2016).

An optional reasoning for the policy on dividend is that dividends are utilized as an indicating tool (Ross, 1977) and (Bhattacharya, 1979). The researchers indicate that

organizations with excessive information asymmetry disburse superior dividends whereas advancing diversity of the board to prompt their expectations to institution owners, the positive of diversity of the board is ascribed to signaling rather than monitoring.

In order to come up with the causes of the dividend policy puzzle phenomenon, the study explored how board diversity would influence dividend policy as guided by the agency and signaling theories.

# 2.3 The Concept of Board Diversity

Board diversity designates heterogeneity in business boards configuration with respect to particular characteristics (Harrison & Klein, 2007); (Ararat, Aksu, & Tansel, 2015); (Srivastava, 2015). Scholars have largely categorized diversity of the board into two groups. First board demographic diversity and secondly is board structural diversity. Board Structural diversity is connected with features, like leadership arrangement (CEO and chairman duality), board size, board model and number of independent board members (Pathan & Faff, 2013); (Bertoni, Meoli, & Vismara, 2014); (Farag & Mallin, 2016). Nevertheless, demographic diversity of the board is founded on the demographic conditions, like nationality, background of the board, age, educational, occupational backgrounds, functional and gender (Hafsi & Turgut, 2013); (Du, 2014). Among the two wide categorizations of board diversity, the study reflected on the demographic diversity of the board in terms of the succeeding two explanations. Firstly, organizational diversity on the board is inferior in developing nations (Ararat, Aksu, & Tansel, 2015). Second, research has described that demographic diversity of the board impacts operations of the board in relations to performance of an enterprise and strategic planning (Zahra & Pearce, 1989) (Hambrick, 2007); (Post & Byron, 2015).

Studies indicate that management scholars with backgrounds in social psychology and sociology were among the first to carry out statistical studies on board composition (Daniel, 2010). According to Ferreira (2010), Pfeffer (1972), was the pioneer of the field of board diversity. He further, states that Pfeffer (1972), views board of directors mainly as a medium for absorbing other outside enterprises and individuals, which is consistent with his view of organizations as dependent on outside resources. Pfeffer (1972), hypothesized that board's configuration in relation to outsiders and insiders, ratio of board members with expertise in finance and lawyer's ratio on boards depends on the company's need to create links with regulators and banks.

Majority of researchers have drawn their studies from Pfeffer (1972), idea that the board is a mechanism for dealing with organizations outside environment. An example is Agrawal & Knoeber (2001), where they investigated appointment of directors with political connections. They found that firms in industries linked to the government have more directors with political connections.

Campbell & Minyuez-Vera (2008) and (Walt & Ingley, 2003), states that diversity is an inherent variety in the members of board's configuration and can be evaluated in numerous ways such as nationality, gender, foreign diversity, industrial experience, age, and organizational membership. Millikan & Martins (1996), Timmermon (2000) and Petersen (2002), view diversity into two dimensions; demographic diversity for example age, gender and non-observable (cognitive) diversity as values, education and Knowledge. Jehn, Northcraft, & Neale (1999), noted that board diversity has benefits to corporations which include generation of better discussions and deliberations.

Van Knippenberg, De Dren, & Homa (2004), also indicate that board diversity creates a culture of communication and questioning. Bebchuk & Weisbach (2010), alludes that

board diversity results to better access to resources and information, enhances board's capability to carry out their responsibilities hence has great impact on board's effectiveness. Studies also shows that despite of board diversity contributing benefits to firms, it also has shortcomings which include coordination issues (Van den Steen, 2010); lack of cohesiveness (Jackson, Brett, Cooper, Julin, & Peyronnin, 1991), leading to excessive conflict and animosity, and inability to reach satisfactory agreement (Simon & Peterson, 2000); and diversion of time towards fighting and persuasion (Baranchuk & Dybrig, 2009). Diversity is therefore, considered a two-edged sword since it would result to both benefits and shortcomings (Millikan & Martins, 1996). This study sort to determine whether board diversity would have no significant influence on dividend policy by examining diversity attributes.

#### 2.4 Concept of CEO Power

Lin & Liu (2009), posits that the twofold tasks of chief executive officer denotes to an individual holding the positions of both chief executive officer and chairperson of the members of directors of the board positions. While there is no firm move to stop chief executive officer /chairperson twofold tasks in UK, USA corporate governance code stipulates that a chief executive officer does not have to be chairperson of the board of director's concurrently. Additionally, the UK codes stipulates that if a twofold task were to endure in extraordinary circumstances, the board members needs to discuss with major investors of the enterprise and disclose justifications in the subsequent yearly report (UK corporate governance code 2014). Academic authorities have provided assorted justifications regarding the advantages and shortcomings of chief executive officer /chairperson twofold tasks. Lin & Liu (2009), alluded that there have been a declining shift to inferior value of auditor when chief executive officers concurrently chairs director's board. This is because enterprises have poor governance

of corporations structures desire to protect the puzzled benefit of having poor corporate governance and eventually allocating lower quality of auditor.

The leadership mode is one of various philosophy embodying corporate governance code. This is especially, out of ordinary that the twofold responsibility of chairperson and chief executive officer has been contemplated a main guideline in determining corporate governance techniques. Coles & Hesterly (2000), alluded that corporations benefit form greater share prices if they have distinct positions of chief executive officer and chairman and have a chairman who has never been a previous employee of same corporation. An evaluation of ancient evolution in corporate governance, accounting and auditing designates that an executive officer or a chief executive officer has been restrained not only from acting as chairperson of members of the board of directors but as well as participating in director's appointment mechanisms so as to minimize any dispute of stake (Imhoff, 2003). Brickley, Coles, & Jarrell (1997), posit that the twofold responsibility is like a person categorizing her or his own home assignment. The Sarbanes–Oxley Act of 2002 (SOX) does not approve essential prerequisites concerning the twofold task (Green, 2004). Some enterprises assign one person as both chairperson and chief executive officer positions of director's board on grounds of the suggested rather than requisite nature of the UK and SOX code of corporation's governance. Enterprises that have strict corporate governance has inferior probability of not being successful due to greater surveillance tasks resulting to audit fees decrease (Krishnan & Visvanathan, 2009). Corporations with spread out holding and with the existence of a chief executive officer two fold responsibilities require greater quality of audit, resulting to high audit fees (Desender, Aguilera, Crespi-Cladera, & Garcia-Cestona, 2009).

According to Albuquerque & Miao (2013), the margin for chief executive officer power in public firms is wide. One perspective is that influential chief executive officers impact the members of the board into compensating them an enhanced remuneration ideally with minimal or no attached strings (Bebchuk, Lucian, & Jesse, 2005). A further perspective postulate that influential chief executive officers take part in varying the very governance that evaluates and monitors their measures (Hermalin & Weisbach, 1998) and (Hellwig, 2000). Hence, guidelines of trade through which top executives are remunerated and benefits assured are not permanent hence themselves are subject to review by top executives.

Enrico, Ramilya, Philip, & Giuseppe (2016), postulate that Powerful CEO's can put money in projects that do not maximizing value of investment to pursue managers' goals which include expense preference behavior, empire building and other related goals. Due to such investors keep an eye on chief executive officers in order to mitigate against such misappropriation but which could be expensive if shareholding is spread (Shleifer & Vishny, 1986). A limited answer to these issue is found in the payment of dividends. These would act as a surveillance mechanism for stakeholders since they will minimize the amount of cash that chief executive officers can appropriate in projects that do not maximizing value of outlay (Jensen, 1986) and enhance the rate of occurrence of chief executive officers scrutiny from external shareholders (Easterbrook, 1984).

Hu & Kumar (2004) and Elyasani & Zhang (2013), alludes that the United State publications linked to non-financial corporations records that entrenchment of chief executive officers results to enhanced dividend payment proportion. This practice is attributed to benefits of engrained CEOs to hinder surveillance of small investors. Dividends is a pre-commitment mechanism where corporate governance is weak;

agency costs can be minimized by a promise to frequently disburse cash to investors because it decreases the possibility since these funds would be misused on ventures which enhance personal incentives of CEOs devoid of owners wealth maximization (John & Knyazeva, 2006).

Notwithstanding, the motivation for paying higher dividends relies on whether embedded chief executive officers can repel threats of takeover (Stulz, 1988) and on the level to which keeping an eye on from the management board is effective (Boumosleh & Cline, 2015). A feasible answer for shaky investor surveillance and payment of low dividends relates to the shielding of the minority shareholders rights. (Rafael, Florencio, Andrei, & Robert, 2000), Provided support that nations with secure minority rights payout ratios are greater implying that great payout ratios are an output rather than a sub-statute of tough minority rights. Compatible herewith, Adjaoud & Ben-Amar (2010), postulates a pragmatic association amongst the corporate value hypothesis of governance and dividend payment ratios. The available support indicate that dividends reduces misappropriation among batch related corporations (Faccio, Lang, & Young, 2001), as shareholders foresee perils of takeover by the commanding investors hence demands enhanced disbursement of dividends. According to Shao, Kwok, & Guedhami (2013), investors in economies with powerful creditor rights lean to be more responsive to likely misappropriation from internal managers implying that corporation insiders come up with policies on dividend with the aim to decrease costs of agency of both debt and equity. This is a significant determination in equilibrium, payout ratios should mirror surveillance benefits of all investors.

Hamori & Kakarika (2009), alludes that position of chief executive officers are always regarded as one of the most influential positions in a corporation. The CEO influence could emanate from significance of this situation as a result of the fact that CEOs are

anticipated to be able of stationing their enterprises to generate fortune (Papadakis, 2006) and boost subsequent chances for investors (Kanter (1982) and Quinn (1985)). Therefore, CEO influence could influence performance of corporations. CEO influence could vary with involvement of a CEO's with members of directors board as a director or even as the chairman of board of directors (Finkelstein & d'Aveni (1994) and Voordeckers, Gils, & Heuvel (2007). In addition, tenancy of the CEO could be a manifestation of the CEO's influence (Shen (2003) and Voordeckers, Gils, & Heuvel (2007). This research examines chief executive officer influence as being only insider in the corporations' member of the board. This is deemed to make the CEO powerful in relation to making of decisions as he/she is able to be only insider capable of influencing decisions of the director's board.

#### 2.5 Theoretical Background

The resource dependency, power circulation, signaling, upper echelon and agency theories guided this research. This study examined board diversity in light of the resource dependency theory and policy on dividend in view of agency and signaling theories while chief executive officer power in consideration of the power circulation and upper echelon theories. The connection between diversity of the board and policy on dividend was also discussed in preview of the above theories.

## 2.5.1 Agency Theory

The agency theory is concerned with responding agency setbacks. Problems of agency were initially brought forward by (Smith, 1937) in (Panda & Leepsa, 2017) in his investigation on "The Wealth of Nations" where he postulated that where a business is under governance of a team of individuals or an individual engaged by owners of the corporation hence there is a likelihood that they could not function in the proprietor's stake. The agency problem transpires as a result of variation amongst management and

ownership. Shareholder's hire managers to propel enterprises in their behalf. The executive's thus execute duties on behalf of the proprietors. The stockholders are in distress as to whether the managers will prudently run their assets. Establishment of the organ of governance is one of the solutions to agency distress administration. The governance organ members positions themselves amongst organization executives and stockholders. Resolutions on outlay are permitted by members of the governance organ and would substitute managers as agents to shareholders (Thomsen & Conyon, 2012). Kang, Cheng, & Gray (2007), posit that when duties of the governance body are to protect stakes of the shareholders then members of the governance organ could be made up of board members who are suggestive of the numerous categories of stakeholders. Financiers are never standardized therefore a standardized members of the governance body could not be suggestive of a heterogeneous stockholder's set. Subsequently, a body of governance that is highly diverse shall be greater in mitigating the challenges of agency. An optimistic connotation amid body of governance member's diversity and entity returns are projected.

Agency theory resolves relations whereby responsibility for making decision is entrusted by corporate proprietors to leaders (Jensen & Meckling, 1976). This occurs owing to the requisite to distinguish ownership and control once the proprietors (principals) require to engage executives (agents) to be accountable for daily tasks for the business and requirement for keeping an eye on their performance so as to assure that managers carryout duties in utmost interest of owners. It's authoritative to uphold that Jensen and Meckling agency problem on separation of ownership and control emanated from studies of Berle & Means (1932). Alchian & Demsetz (1972), allude that monitoring an individual task performance accomplishment is continually an expense of all organization and therefore a company's insufficiencies befall in a

conditions where the communication of facts on an individual's performance is denied or reduced. These occurs in circumstances where there are large teams or unsupervised professionals, directors of businesses act alone.

Jensen & Meckling (1976), recommended the key hesitations of agency theory as being in what way to pull out agreements on which performance of representatives would be currently decided hence inspire them so as to perform their responsibilities for the bondholder's greatest interest in consideration. Based on the conception that leaders will have different goals, dual main problems of agency are appreciated as, techniques to assure that agents could execute their duties in a way which owners expect and in what approach to bring into line conflicting goals of principals and agents. These difficulties would occur wherever managers create egocentric decisions and manipulated achievement information maybe through moving numbers around or "creative accounting" so as to present optimistic performance facts. Problem come to light when the principal could not be in a position to determine whether his manager operated appropriately (Eisenhartdt, 1989). He further alludes that agency theory outline mechanisms that reduces agency expenses. These could contain administrator's inducements strategies that financially reimburse agents for maximizing stockholder interests.

This approaches contain schedules where directors purchase stocks at prices that are lower, therefore matching financial interests of top executives with those for stockholders (Jensen & Meckling, 1976). The other associated strategies link executives' compensation and level of rewards to stockholder's yields and portion of compensation to senior managers suspended to a future period to profit long term achievement of management that would harm corporate value. It is in opinion of such

corrective events that this philosophy is utilized to seal the opening in light of the shifting landscapes relating to agency problems in corporate governance investigations.

Carter, Simkins, & Simpson (2003), alludes that a governance organ that is varied would momentously monitor senior manager as director's diversity improves governance organ's independence. Additionally, designate that agency theory could not convey a robust prediction on the relation among board member's diversity and corporate yields. Agreeing to the opinion, a board which is greatly diversified is anticipated to be obligated to executives. It is in light of these fundamental concerns which this investigation pursues to explain the agency gap which occurs amid proprietors and top executives to permit enterprise investors accrue benefit from their outlay through improved payout in form of dividend.

## 2.5.2 Signaling Theory

Signaling theory was first brought forward by (Spence, 1973) in (Ray & Phil, 2015) where he used the labour market to model the signaling purpose of education. (Spence, 1973), alluded that employers lacked information on the feature of work applicants hence applicants acquired educational qualifications to signal quality and minimize asymmetry of information. The lower quality applicants could not be able to endure the severities of higher qualifications hence made the theory more reliable. Many studies have posited that dividend payment has information content about the future earnings (Bhattacharya (1979), Miller & Rock (1985), and Pyung & Lama (1995)). Dividend signaling theory suggests an optimistic association amid information asymmetry and policy on dividend (Lang & Litzenberger, 1989). Modigliani & Miller (1961), established that signaling effect may as a result of dividend policy. This shows that the executive management of an enterprise has greater information about the firm's strategy hence can project future returns of the business. Therefore, inside employees of the

organization have enhanced information than outsiders (shareholders) and the general market. These contributes to information asymmetry. Companies may therefore, apply dividends as a signaling element that communicates valuable facts to stockholders in the market or its bondholders. The information can reflect the strategies the company is initiating in the short-run and long-run. Since top administrators have private facts about the enterprise, they can change people's expectations with regard to future earnings through dividends.

Studies have casted doubt on signaling theory of dividends in both the developed and growing nations (Denis & Asobov, 2008). The findings of the study indicates that aggregate dividend did not decline over time in the sampled countries and were focused amid the biggest, greatest profitable enterprises in each country involved in the study thus casting doubt on the signaling theory of dividends. Other studies have highlighted positive results on signaling effects of dividend less likely than permanent companies to encounter a decline in subsequent earnings. Thus, the escalation in simultaneous earnings could be assumed to be rather indefinite. This research therefore sort to fill the gap that exists on information content of dividends to the stakeholders hence introduces board diversity variables in order to determine whether it can be a solution to the phenomenon.

# 2.5.3 Resource Dependency Theory

The origin of resource dependence theory owes greatly to the University of Stanford and University of Illinois owing to their organizational studies contributions (Pfeffer, 2003) in (Davis & Cobb, 2010). The theory addresses how members of the board could relieve access to precious resources. Importance is on an organizations' proficiency to generate linkages to accommodate access to vital resources for example customers, suppliers, capital or cooperative partners (Rondøy, Thomsen, & Oxelheim,

2006). A governance organ that is greatly varied could display superior admission to various kinds of assets. For example, a board which is greatly varied is well positioned to understand a bunch of client, as a board that is greatly diverse have different contributions.

Resource dependence theory is traced to have its origin from Stanford through the period of the Ford Administration, as a half-dozen of the ending hypotheses of research for the corporations developed (Gerald & Adam, 2010). Resource dependency theory attributes an entity as an open system reliant on the exigencies in the outside environment (Pfeffer & Salancik, 1978). Pfeffer & Salancik (1978), indicates that to comprehend the organizational culture one must grasp the content of that culture that is ecology of the enterprise.

According to Pfeffer & Salancik (1978), boards aims to connect the organization to other external entities so as to solve environmental dependencies. The researchers proposes four primary advantages for the external linkages which are, delivery of obligations of help from key organizations or the outside surrounding groups, resource supply such as information and expertise, formation of legality for the organization in the environment outside and design of communication avenues with constituents of great significance to the organization. Further studies enhanced these four gains into taxonomy board of types of director that provide numerous resources to the corporation, support specialist community influential and business experts (Hillman, Cannella, & Paetzold, 2000). Expansion of resource dependence theory by Hillman, Cannella, & Paetzold (2000), proposes that distinct types of director's would offer distinct resources beneficial to the organization. Consequently, a highly cherished capital will be provided by a more diverse board, which will generate greater organization performance.

Studies indicate that diversity type is critical to the organization. For example, Stephen & John (2014), in a study of professional expertise and board diversity find that when enterprises limit their diversity of the board to a specific division of professional expertise shareholders benefit (consultants, lawyers, bankers, accountant and other CEOs). Agrawal & Knoeber (2001), allude that external director with legal and political credentials are highly possible to be in the boards of the firm which trade with the government or face government regulation. The researchers also allude that women directors and ethnic minority board members with governance organ's experience come with various resources and gains like collaborative skills. Hillman, Cannella, & Harris (2002), postulate that African-American female directors on the board are less probable to be commerce specialists than their African-American male colleagues, and that female and male African-American, members of the board are less probable to be commerce specialists than Caucasion women board members and Caucasion male board members are highly possible to be commerce specialists. The study evince that in the US business specialists are predominately Caucasion males. It was noted that Gender and foreign diversity are separate dimension under resource dependency theory since ethnic minorities and women have distinct experiences and distinct human capital that contributes to the capacity to solve distinct ecological addictions.

Carter, D'souza, Sinkins, & Simpson (2010), states that resources dependence theory furnishes foundation for some of the best persuasive theoretical discussions for a commercial situation for diversity of the board. The researchers state that diversity embraces the possibility to enhance the facts contributed by board members to top executives as a result of distinctive facts held by diversified board members. Distinctions in foreign and gender diversity are probable to generate insightful information set that would be important to top management for healthier decision

making. Thomsen & Conyon (2012), postulates that members of boards who are diversified in education, experience, gender, ethnicity and background in a considerable diversity of distinct skills and knowledge. Members of the boards with diverse membership have enhanced perceptions into business opportunities, employees, customers and markets. This results to an improved mastery of commercial situations, and in turn to greater performance of the firm. Diverse board members provide access to significant players in the outside environment. Studies indicate that diverse corporations have access to greater talent effective decision-making access to resources and connection, career incentives, corporate reputation, investor's relations and social responsibility (Stephen & John (2014), Galia & Zenou (2013) and Garba & Abubakar (2014). This research pursues to seal a gap in knowledge that exists amid diversity of the enterprises governance organ and dividend policy among enterprises hence determine whether board diversity my remedy dividend policy decisions.

## **2.5.4 Power Circulation Theory**

The research appraises Power of CEO in view of power circulation theory. Studies allude that power circulation theory was developed to account for political connotations revolving around communal high class (Michels, 1962), therefore prolonged in the perspective of corporations governance (Ocasio W. C., 1994) and (Shen & Cannella, 2002). This perception displays management level of administration of the business as fundamentally political connected with persistent influence shifting coalitions and scuffle (Ocasio W. C., 1994). Pareto (1968), Ocasio W. C. (1994) and Ocasio & Kim (1999), acknowledges that control as well as influence on the corporation's decision formation and resources shifts and moves among enterprises associations and acquaintances overtime. Power circulation challenges a perception that indicates that CEOs could safeguard their power (Ocasio W. C., 1994) and (Pareto, 1968). The theory

suggests that power crushes and disappears over a time frame as an outcome of political obstacles arising from developing opponent's quantity and challengers as an individual accelerates in the managerial influence transmission as molded by collaboration in methods that is obsolescence and contestation (Ocasio W. C., 1994). Obsolescence denotes that CEOs are expected to be immobile and out of date as a result of their association with resolutions made formerly (Miller, 1991). Contestation appears amid executives perceived as opponents from CEO's viewpoint (Pfeffer J. , 1981). Degree of Competitiveness is a fraction of strength besides possible challenger's number. In organizations where inside members of staff seat on the board, have precise interests as they are soundly positioned to differ with a serving CEO.

Power circulation theory describes chief executive officers as precarious leaders of a powerful executive association (James, David, Alex, & Maura, 2007). Conversely, the CEOs inspiration is endured as other executives are importantly stimulated to notice as they answer to CEO's boundaries as all would have visions for being selected as a CEO therefore accrue greater position hence prosperity apprehended by incumbent (Henderson & Fredrickson, 2001). This study evince that CEO supremacy could moderate connotation among governance organ's diversity of gender and policy on dividend in Kenyan organizations enumerated in NSE. Predominantly, chief executive officer influence could relate with independent variables (diversity of gender) to impact policy on dividend of the companies.

### 2.5.5 Upper Echelon Theory

Upper Echelon Theory was developed on the foundation that corporation's results are unswervingly wedged by the expertise, experiences and knowledge of those personalities holding conspicuous decision-making responsibilities in the firm (Hambrick & Mason, 1984). The researchers presented a model in which conditions

happening in the perspective of firm's natural life are solved by executives whereby tactical alternatives (sets) are finished as a task of the inimitable attributes these persons display. Due to the alternatives made by these personalities, performance of the firm is declared precisely wedged. Reconciling the influence that "upper echelons" have on performance of corporations, (Hambrick & Mason, 1984) evinced that emphasis could be concentrated towards facts that are easily recognizable in reflecting personal attributes in relation to the professional, social backgrounds and educational level of top executives in contexts of the corporation.

Upper echelons theory indicates that firm's outputs both effectiveness and strategies are contemplations of the cognitive bases and values of authoritative players (top managers) in the enterprise (Hambrick & Mason, 1984) and (Carpenter, Geletkanycz, & Sanders, 2004). Additional, the theory postulates that top executives' opinion of their business setting impacts the strategic options they make that ultimately impacts on the performance of the corporation. It further indicates that their fields of vision (the area's executive administrators direct their responsiveness to) and for that matter, the perceptions of the surroundings whose results are limited by their values and cognitive base. This is since the attentional operation is guarded by the restricted aptitude of humans for information manipulation at any given period and as a consequence, the choice to attend to particular components in the surrounding environment is established by the personal tendencies and dispositions. In other words, individual features of senior executives establishes the facets of the surroundings that they could "see" and whatever they perceive enlighten the choices they make concerning strategic options that eventually impacts the bottom-line of the cooperation. The review of the theory by (Carpenter, Geletkanycz, & Sanders, 2004) added moderators and mediators of senior executive group impacts such as

integration, incentives, team processes, power and discretion to the model as highlighted in figure 2.1 below. They also re-conceptualize both strategic alternatives (that in the original form of the theory are mediators) and enterprise performance as corporate outputs.

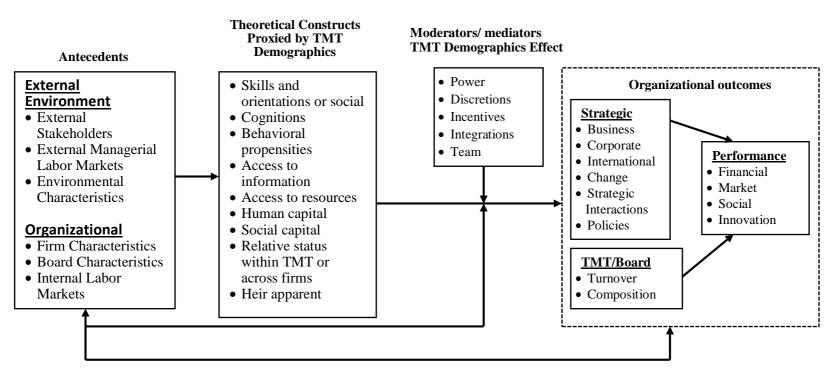


Figure 2.1: Carpenter, Geletkanycz and Sander's stylized model of the upper echelons

In order to examine this theory, researchers on management have approached the interrogation of whether executive leaders impact their corporations in two ways. First, they evaluate senior executive's demographics and link them to the benchmarks of firm performance. Second, they evaluate the essential psychological attributes of C-suit managers and decide whether or are not linked to the organizations performance. However, the majority of the Upper Echelon scholars took the 'demographic' approach instead of the "psychographic" one with a handful of investigations evaluating both psychographic and demographic variables. Grounded on the revised and original versions of the theory, it could be recommended that executive leaders' individual attributes could directly impact on corporation's results (Hambrick & Mason, 1984) and (Carpenter, Geletkanycz, & Sanders, 2004).

Empirical investigations that followed from Hambrick & Mason (1984), philosophy recommend that certainly the executive leadership squad matters to the corporation performance. For example, Bantel & Jackson (1989) and Murray (1989), acknowledged that executive leadership team demographics are linked to invention and organizational performance correspondingly. It was hence considered critical for organizational practitioners and scientists similarly to appreciate the features that support the values, perceptions and cognitions of C-suit leadership players. In recent times, the differentiating attributes of these investigations was that they typically examined C-suit leadership players demographic variables such as tenure, education, age, functional background and comparable variables in connection to the corporations results (Sparrow, 1994) and (Carpenter, Geletkanycz, & Sanders, 2004). In Kenya, studies on demographic diversity has examined boards composition in terms of education, gender, culture, tenure, ethnicity, age, functionality and race (Rumana & Mutuku, 2017); (Omoro, Aduda, & Kennedy, 2015); (Tarus & Aime,

2014). The studies posit that diversity elements have influence on performance of entities in Kenya hence their importance in organizations dividend decision making.

As the investigations advanced, particular variables were theorized as moderators or control variables. They encompassed organizational environment, size and age. In the modified casual version of the upper echelons theory, (Carpenter, Geletkanycz, & Sanders, 2004) identified these and other elements as impacting on the executive leadership detecting creation of their environs and process of strategic decision making. In the recent past, Nishii, Gotte, & Raver (2007), denoted that diversity in terms of demographic of top administration connected positively with the taking on of diversity principals. In this study its posited that the CEO Power and board diversity variables are affected by the upper echelons theory since the CEO Power as a moderator and age diversity, professional expertise diversity, gender diversity and foreign diversity are attributes of demographic diversity practices of senior managers of firms.

# 2.6 Board Diversity and Dividend Policy

The study investigated diversity of the board in terms of foreign diversity, professional expertise, gender and age in connection to dividend policy of corporations in Kenya. The ensuing sections enumerate this variables.

### 2.6.1 Board Foreign Diversity and Dividend Policy

Foreign diversity refers to admission of nationals of other countries, states, and republics other than Kenya to the board of corporations incorporated or operating in Kenya. As a result of internationalization elements borders of commerce are growing. Foreign venture capitalist are investing at a fast speed for having stocks in diverse

businesses throughout the world however unluckily existing literature concerning nationality diversity and performance of firms is inadequate in the predominant market situations (Rondøy, Thomsen, & Oxelheim, 2006). The existence of a foreign member of the board enhanced corporation's performance as a result of watch-dog role performed by the foreign board members and ensuring that the board is independent by minimizing expropriation and limit the influence of prevailing members of the board (Oxelheim & Randoy, 2003); (Choi, Jeong, & Lee, 2014), foreign members of the board have been recognized as a significant portion in corporate governance (Choi, Jeong, & Lee, 2014) and foreign members of the board carry diverse outlook and insights, heterogeneity, and different thinking and professional experiences (Ararat, Aksu, & Cetin, 2010).

Introducing foreign diversity to boards of corporations has major inferences for board of director's dynamics. Diversity characteristics (aspects) are regularly categorized into relations oriented and activity connected (Pelled (1996) and Jackson (2002)). For instance, gender, foreign diversity and age are relations oriented characteristics; functional environment, tenure and educational are assignment associated diversity characteristics. Analyses of diversity studies determine that whereas conventional types of task associated diversity are often correlated with optimistic imaginative and signaling concerns for example better image, innovation, creativity etc., the more associations aligned diversity may result to adverse communication and intuitive outcome like minor decision rate, disagreement and dispute (Frances & Luis, 1996) and (Phillips & O'Reilly, 1998). A foreigner joining an organization's board of directors could come with not only distinct knowledge, skills and perspectives, but also distinct understanding, norms and values. Furthermore, these foreign board members are not just directors from other nations as they have a number of other attributes (both in terms

of affiliations and demographics) that are related to their responsibilities as board members. Prior studies on members of the diversity of the board predominantly in the European situation has typically accentuate obstacles of nominating foreign board members without looking at the other applicable attributes and credentials that these board members carry along to the board (Ruigrok, Owtscharov, & Greve, 2005).

Foreign board members are considered important directors as they could offer organizations with important international prowess and guidance. Incidentally, Masulis, Wang, & Xie, (2012), allude that foreign board members lay out region related proficiencies that would be useful to inter countries acquisitions in assessing goals. Foreign board members would deliver important perceptions and help to firms, majorly to those firms that wish to enhance activities globally. Prior support shows that foreign board members are better organized in terms of corporate governance (Masulis, Wang, & Xie, 2012). Yon & Park (2006), also establish that foreign board members favor short term results as they claim greater dividend payments instead of reinvesting returns back into the organization.

According to Cox (1994), foreign diversity has its foundation in cultural diversity. A number of academic works on diversity have found that race or foreign diversity has pragmatic effects at the single and small group levels (Watson, Kumar, & Michaelsen, 1993); (Cox, Lebel, & Mclead, 1991), but (Lisa, Kathleen, & Katherine, 1999) and (Tsui, Egan, & O'Reilly, 1992), noted that diversified groups perform less well than congruent groups. There appears to be no explanation for these incompatible results. Cedric (2009), alludes that diversity when tied to concerns about equality is linked to pragmatic results, at least in business enterprises. The researcher further states that diversity is related to firms favourable results because it allows corporations to think outside the box by bringing previously debarred groups inside the box therefore,

propelling organization's performance, problem-solving, and creativity. Studies indicate that foreign diversity brings about variety in cultures, experiences, abilities, which may be fruitful and could lead to creativity and innovation (Alesina & Eliana, 2005).

Barney & Wright (1998), noted that businesses with foreign diverse board offer satisfactory situations for executives with distinct information bases to relate, thus better diversity could be a premeditated asset which will aid entities achieve a competitive advantage. Studies indicate that knowledge and experiences which executives accumulate from the ethnic and foreign circumstances signify an opulent source of modernization and creativeness (Ely & Thomas, 2001). In support of this view research have demonstrated that group diversity relates negatively to group think and relates positively to the quality and number of philosophies produced (Cox & Black, 1991); (Watson, Kumar, & Michaelsen, 1993); (Mclead, Lobel, & Cox, 1996). Therefore, foreign diversity could enable executive teams a benefit in relations to evolving concepts for first-hand competitive activities. Fama & Jensen (1983), state that the configuration of the members of the board can act as a signal to shareholders on the soundness of the governance processes in existence and standard of the corporation. Foreign diversity of board members could act as a signal to the outsiders of the enterprise's commitment to communal impartiality hence impact on the outsider's sensitivity to its performance (Miller & Del Carmen Triana, 2009). (Miller & Del Carmen Triana, 2009), concludes that board members who are demographically diverse could propel an enterprise's stature by signaling healthy working environment and norm adherence.

Scholars have determined that particular hypothetical views recommend that ethnic diversity adversely disturbs team results through advanced intra-team engagement,

fault conception and versus out-group classification (Byrne, 1971); (Tyfel, 1978). Executive foreign diversity would therefore, diminish faith and upsurge period for realization of agreement about competitive movements (Hambrick, Cho, & Clen, 1996). It is therefore, hypothesized there will be no significant connection amid foreign diversity and dividend policy in Kenya.

### 2.6.2 Board Professional Expertise Diversity and Dividend Policy

Research on professional expertise of corporate directors has generally concentrated on the presence of a particular kind of professional expertise legal, banking, accounting, political or outside CEOs (Agrawal & Knoeber, 2001); (Fich, 2005); (Guner, Malmendier, & Tate, 2008). Anderson, Reeb, Upadhyay, & Zhao (2011), examined multiple types of expertise. Their determination of professional expertise included the existence of bankers, accountants, lawyers, consultants and outside chief executive officers on the board of directors. Jensen (1993) and Klein (1998), allude that boards made up of directors from distinct commercial and socioeconomic credentials carry diverse viewpoints to their surveillance and advisory roles that would deliver satisfaction to business owners through enhanced problems solving, strategy development and resource utilization. However, Putnam (2007) and (Baranchuk & Dybrig (2009), postulate that board members from diverse backgrounds could generate boardroom conflicts hence delay resolution development, impends communication hence leads to social loafing. Some study indicates that diversity result to increased cost of communication and higher team member turnover (Arrow, 1986) and (Lang, 1986) hence; it is not clear whether less or more professional expertise diversity of board members is in the investors the best interest.

Professional expertise of members of the board has been examined by researchers generally focusing on presence of a particular category of professional expertise. Defond, Hann, & Hu (2005), examined directors with financial expertise and found that the market response to fresh board members selection is advanced if a board member has financial prowess which is appropriate to the corporation's audit committee. Fich (2005), examined board members with CEO know-how and indicated that declaration of proceeds is big for members of the board with prowess of a chief executive officer in another registered firm. Francis, Hasan, & Wu (2013), examined directors with different types of academic expertise which included sociology, business, engineering among other fields. The study overly provides supportive proof that academic board members are important advisors and effective monitors hence firms benefit from having academic directors.

Gray & Nowland (2014), carried a study on professional expertise and board diversity hence shows that highly common categories of professional expertise on organizations boards are bankers, lawyers, accountants, trade persons, engineers and scientists. They also found that forms of professional expertise are grouped in particular businesses like scientists (health care, energy and materials), banker (financial), engineers (energy, industrials and materials) and doctors (healthcare) and academics while some forms of expertise are predominant transversely in all sectors (accountant, executive, lawyers, and bankers). The researcher did not find any correlation amongst diversity in form of professional expertise and corporate's worth. Gray & Nowland (2014), established proof that investors profit when organizations restrict their diversity of the board to a specific group of professional expertise (other CEOs, bankers, accountants, consultants and lawyers).

Studies by Kirkpatrick (2009) and Walker (2009), indicate that deficiencies of financial expertise on membership of the governance organ of organizations contributed a paramount role in period of the financial predicament. Consequently, the existence of extra financial expertise among members of the board essentially impact the board member's decisions among them dividend policy. Financial expertise on the corporation's board membership helps in monitoring so as to protect board members from accusation of failure in their watchdog responsibilities and enhances provision of quality services to the investors which protects their interests. There is an enhanced mass of publications on how financial expertise on corporation's governance organ enhances efficiency of the board (Anderson, Mansi, & Reeb (2004); Karamanou & Vafeas (2005); Agrawal & Chadha (2005); Krishnan (2005)), results to improved practices of corporations (Krishnan (2005); (Robinson, Xue, & Zhang (2012)), and enhances performance of corporations (Dionne & Triki, 2005); (Francis, Hasan, & Wu, 2012); (Fernandes & Fich, 2013).

In corporate world today, there is increasing demand by companies to have enhanced appointment of experts with financial background on the organization's boards, but demand for experts with financial background of board of directors improved after the Sarbanes-Oxley Act (SOX) of 2002. Expertise can be defined as competence by benefit of acquiring knowledge that is exceptional. It is founded on guidelines examining skill to carry out activities. The reports of corporate governance on Blue Ribbon Commission report in 1998, CalPERS in 1997, NYSE in 2004 and SOX in 2002 also suggested some regulations on members of the board's expertise. These documents were furnished as a feedback to diverse accounting scandals that had taken place since the 1990s, like Tyco, WorldCom, HealthSouth, Enron and other distinct financial adversities. The disclosures additionally, included the importance of financial prowess

in board members of carrying out their main role of keeping track of the organization's financial health. As stated in the SOX (Section 407), a financial expert is an individual with practical exposure in finance or accounting or expertise in supervisory. DeFond, Hann, & Hu (2005) and Krishnan & Visvanathan (2008), used SOX of 2002 to account for prowess in finance. Krishnan (2005), Agrawal & Chadha (2005) and Francis, Hasan, & Wu (2012), studied the link among the board's financial expertise and enterprise performance. The investigators determined that expertise in finance of members of the board minimizes the problems of reporting restatements and internal control; further, it influences an enterprise's financial outlay (Güner, Malmendier, & Tate, 2008), earning management (Karamanou & Vafeas, 2005), hedging (Dionne & Triki, 2005) and taxes (Robinson, Xue, & Zhang, 2012). Additionally, there is immeasurable studies related to corporate governance and members of the board in corporations (Shleifer & Robert, 1997); (Daily, Dalton, & Rajagopalan, 2003).

According to Klein (2002), in the board's responsibilities as managers of the organization's financial reporting activity, the members of Audit Committee converge frequently with the corporation's auditors and top executives to audit process, internal accounting controls and examine firm's financial statements. To enhance productiveness of the Audit Committee ensuing scandals in accounting like the Enron Scandal in the US, many countries around the world requires that some Audit Committee members to have proficiency in financial management (Sarbanes-Oxley (SOX) Act, 2002); (Blue Ribbon Committee, 1999); (Bédard & Gendron, 2010); (Badolato, Donelson, & Ege, 2014); (General Accounting Office, 1991); (Smith Committee, 2003).

Badolato, Donelson, & Ege (2014), determined that Audit Committees with both knowhow in financial matters and in great comparative position are linked to lower management of earnings. Qi & Tian (2012), established that manifestation of board members with proficiency in finance on Audit Committee lowered administration of earnings while Davidson, Xie, & Xu (2004), alluded to a material positive price of stock reaction when new Audit Committee members have expertise in finance. However Albring, Robinson, & Robinson (2014), determined that know-how in accounting confers to Audit Committee's surveillance role of auditor's independence, they evince that wider knowledge could not be an effective technique. An appraisal study involving a proof of the expertise in financial effectiveness on attributes of financial disclosure by Bédard & Gendron (2010), reported that 57% of the reviews pinpointed established an optimistic relationship amid expertise in finance and Audit Committee's effectiveness, while 10% determined an adverse connection and the residual 33% showed an insignificant relationship. Consequently, on the proof furnished by (Bédard & Gendron, 2010), the successfulness of know-how of finance in minimizing financial disclosure misapplication are heterogeneous.

Beekes, Pope, & Young (2004), alludes that to be effective as a technique for surveillance, board members could have adequate incentives for understand and monitoring out-turns of financial disclosures resolutions. Feasibly, members of the board should be in a position to comprehend out-turns of decisions in financial reporting when they have the requisite financial training. This would enhance their comprehension of the convolution of financial reporting, to establish and to cross examine which make directors meditate vigorously, to comprehend auditors' reasoning, and to underpin the auditor in management-auditor disagreements ((Kalbers & Fogarty, 1993); (Levitt, 2000); (DeZoort & Salterio, 2001); (Mangena & Pike, 2005); (Zhang, Zhou, & Zhou, 2007)).

The significance of expertise in finance is emphasized by SOX (2002), that indicates that board members must have requisite know-how in formulating and audit of financial statements and reserves accounting, estimates and accruals (Dhaliwal, Naiker, & Navissi, 2010). Beasley, Carcello, Hermanson, & Neal (2009), allude that the most critical specifications for discharging responsibilities of the audit committee is the board members own expertise in finance. Existing studies proposes that the experience in finance of members of audit committee contributes an essential role in compelling competitive practices in accounting. For example, Abbott, Parker, & Peters (2004) and Agrawal & Chadha (2005), detected an adverse association amid the chances of reinstatement and existence of at least one director with know-how in finance. Likewise, Bédard, Chtourou, & Courteau (2004) and Hossain, Mitra, Rezaee, & Sarath (2011), indicate that inferior accruals grounded returns administration is a feature of corporations with at least one professional in financial matters on the Audit Committee. Ultimately, Xie, Davidson, & DaDalt (2003), allude that voluntarily modern accruals are adversely connected to the distribution of external board members with investment (and investment banker) or knowledge in corporate administration. This study aims to establish the missing links among corporate boards in Kenya in relation to distinct expertise required to ensure optimal service provision to customers/investments that enhance returns for the stockholders. Based on resource dependence, and upper echelon theories this investigation sort to determine whether professional expertise had a great influence on dividend policy among Kenyan firms.

### 2.6.3 Board Gender Diversity and Dividend Policy

Company's Boards all over the globe experience heightened aggravation to appoint board members who are ladies (Adams & Ferreira, 2009). Some countries like Spain, Norway, UK, and Sweden recommendation of female members of the board to

corporation's boards has been made obligatory through statutes (Adams & Ferreira, 2009). (Adams & Ferreira, 2009), allude that women existence on the corporations boards is foreseen to contribute to improved oversight as they are not part of the 'oldboys' club' which makes them adjacent to independent board members. Furthermore, through evaluating the oversight influence of women with regard to contracts on compensation and retention resolutions. (Adams & Ferreira, 2009), posit that ladies are firm on issues of oversight than their male peers. Additionally, scholars like (Erhardt, Werbel, & Shrader, 2003) and (Hoever, Van Knippenberg, Van Ginkel, & Barkema, 2012), has postulated that gender diversity permits simulated oversight by growing stakes, experience, expertise, perspectives and creativity. Furthermore, as indicated by Chattopadhyay, George, & Shulman (2008), diversity of gender would contribute to differences due to lack of faith therefore this is expected to heighten surveillance.

Women members of the board posit performance of oversight responsibilities, enhanced board presence and request for significant accountability from the corporation's leader for adverse performance (Gul, Shnidhi, & Mg, 2011). This close monitoring would reduce data asymmetry at members of the board level and too encourage further reporting to the external environment by preventive manager's from utilizing information from within the enterprise for their individual advantages (Gul, Shnidhi, & Mg, 2011); (Srinidhi, Gul, & Tsui, 2011) consequently, legalize enterprise executive's manipulation. The selection of female members of the board is likely to improve independence of members of the board and improve the value of bondholders. Nevertheless, it heartens improved procedure of making decisions, improved communication amongst members of the board and the board's decisions are made more knowledgeable (Bear, Rahman, & Post, 2010); (Daily, Dalton, & Rajagopalan, 2003). Additionally, the nomination of women members to the board enhances the scale

and deepness of debates and dialogue, particularly those related to inspiring stuffs (Huse & Solberg, 2006); (Srinidhi, Gul, & Tsui, 2011). Westphal & Zajac (1995), reveal that senior managers select members of the board who are demographically similar to them in order for them to achieve their support and collaborate to realize improved disbursement. Accordingly, the recommendation of female members to the board could enable board members demographic diversity, which could improve board member's surveillance responsibilities (Bear, Rahman, & Post, 2010). Female members of the board are more middle-of-the-road and also risk averse than their opposite male peers (Anna, Takeshi, & Melissa, 2009); (Huang & Kisgen, 2013); (Faccio, Marchica, & Mura, 2016), and are less expected to tolerate executive exploitation for fear of being apprehended. Female members of the board are more ethically sensitive than men (Owhoso, 2002); (Can, Bonita, Dilek, & Lerzan, 2005); (Ibrahim, Angelidis, & Tomic, 2009); (Lund, 2008) and are less liberal with respect to management manipulation than board members who are male.

Past research also support that organizations with female board members perform better than their counterparts who are male. For instance, (Gul, Shnidhi, & Mg, 2011) indicate that female members of the board are associated to wealthy information environment, and (Nekhili, Nagati, Chtioui, & Nekhili, 2017) indicate that corporate social responsibility (CSR) reporting have more useful material in enterprises with diversified gender on the board than in other companies. Consistently, (Ferdinand, Marion, & Karen, 2013), suggested that gender diversity improves correctness and financial reports clearness. They determined that female members of the board are connected to more accurate and less dispersion of predictor's returns forecasts. By utilizing a sample for period ranging from 2003 to 2005, (Sun, Liu, & Lan, 2011) show that gender diversity could not impact audit committee's efficiency in regulating returns

management. Nonetheless, their results would be interpreted with caution since the sample was restricted to the timeframe closely after legislation of SOX when massive United States of America companies were beneath dynamic scrutiny over the audit committee's obligation in improving administration of yields, that would have led to due care being executed by both female and male members of the board. Similarly, through this period of time, there may be insignificant backing of the influence of gender on practices of directors.

The prior research by Gul, Shnidhi, & Mg (2011), diversity of gender of members in the board can escalate board members debates standard and boost board members potential in delivery of enriched surveillance of the board of corporation's disclosures and reporting that stimulate more effective communication to investors. Current investigations demonstrate that female members of the board contribute heightened oversight and monitoring of the organization's senior managers disclosures and engagements by supporting appointment, assuming monitoring positions on the audit, and superior attendance of the board, and corporate governance committees persistence for momentous answerability from executives of corporations for gloomy performance (Hillman, Shropshire, & Cannella, 2007) and (Adams & Ferreira, 2009).

Sabina & Morten (2010), states that the fraction of women members of the board is confidently related to boards strategic mechanism and incidentally to enterprise's financial performance. The researchers postulate that female board members in directors' boards contribute to reduced degree of dispute. Since women board members could strive strongly to get to agreement in so as to minimize agency conflicts.

Agrawal & Knoeber (2001), alluded that female members of the board with board positions carry with them diverse benefits and resources like expertise for alliance that

are stressed in the theory of resource dependence. The female members of the board therefore would contribute to the enriched corporate financial performance due to ground-breaking contributions. Hillman, Cannella, & Harris (2002) and Peterson, Philpot, & O'Shaughness (2007), posit that female members of the board could have different responsibilities on the board membership.

Majority of studies in both evolving and advanced nations has examined the link amid gender diversity and performance of the corporation. (David, Frank, Betty, & W. Gary Simpson, 2010), in a study on racial and gender diversity of boards in US and committees of the board and corporation's performance could not establish an essential association between gender diversity of members of the board and financial performance in a chosen number of key corporations in the United State. The study also indicated that the link among gender diversity of board members and business performance was endogenous. A study by (Sinikka, Janne, & Sinikka, 2009) on boardroom gender paradox disclosed two discussions in the chat of female board member's professionalism as the discourse of proficiency and the discourse of gender that could both be informally pulled on by the same individual as the debate advanced. (Wang & Clift, 2009), surveyed the boards members diversity "business case" where they observed that gender diversity had no vital impact on performance of the corporation.

Toyah & Mariadel (2009), assessed the link between diversity in terms of demographics in the supreme governance organ and corporation's performance where they established an optimistic association between board gender diversity and modernization. In a research by Marianova, Plantenya, & Remery (2010), examined relation amid gender diversity in the board on performance of organizations, based on proof from Denmark

and Netherlands where they could not determine any influence of gender diversity in the board on performance of companies within both nations. Abubakr & Muhammad (2017), establish a robust and strong backing sustaining that gender diversity of the board is adversely associated to cash dividend disbursements in all evolving republics. The research also posits that a negative connection amongst the board members in relations to diversity of gender and payments of dividend that was more distinguished at the phase of financial crisis. Dividend payment Policy is evinced as an element of corporation's performance, consequently this investigation targets to appraise if dividend policy would have a link with diversity of gender in corporation's board.

### 2.6.4 Board Age Diversity and Dividend Policy

United Kingdom firms in the recent times has so far either set out diversity of age as a target or as an expressed corporation's policy. In the UK corporations initiated an initial Code of operation on diversity of age in engagement which was transcribed in 1999 providing for a voluntary set of mechanisms to enhance equitability and performance of corporations through six areas i.e. development and training, retirement promotion, selection, and redundancy recruitment. In relation to outcomes from the UK push with regard significant diversity of age, enterprises that are positive, report greater staff self-confidence, elevated output and gain of a broader base of client (Department for Works, & Pensions, 2002). These key areas and reports plan to all three of the standards which are fairness/ discrimination, legitimacy/ access and effectiveness/learning. Hong & Page (2004), employed a model in mathematics to display that "diversity trumps ability", but this model disregarded the knowledge element and evaluated an action shots in a period only. Nonetheless, set an assorted class of persons and a solid problem – solid defined as further than the aptitude of any one individual to unravel - the model forecasts that

an unsystematic choice of problem-solvers would be more structured than a correspondingly sized choice selected for having uppermost scores in a pertinent examination. The researcher's outcomes pause upon the suggestion that as the population from which to select increases, the uppermost recording problem-solvers will become more and more alike, creating the haphazard choice to be more and more diverse which enhances the decision making aptitude.

In specific terms, it would seem that diversity of age is most useful when the assignment at hand is of composite attribute. Wegge, Roth, Kanfer, Neubach, & Schmidt (2008), postulate that the consequences of diversity of age on performance was evaluated. Analyzing, prior studies on gender and age diversity, they established the known assorted outcomes. Grounded on this, they hypothesized that the convolution of the activity would have a moderating influence upon the impact of diversity. Numerous conceptual frameworks from work psychology give descriptions on why diversity would have adverse as well as optimistic impact - social identification and the similarity-attraction models (the aspiration of the person to mirror and turn out to be part of the group) both foresee adverse impacts of diversity while the decision-making model in teams make the reverse projections.

Wegge, Roth, Kanfer, Neubach, & Schmidt (2008), allude that which one of these clashing impacts would be domineering dependent upon the activities intricacies, defined as robust call for decision-making complexities. An examination was carried out by Wegge, Roth, Kanfer, Neubach, & Schmidt (2008), amongst work clusters in certain 4000 staff in the public sector. Diverseness of age enhanced group's capacity to unravel activities with extraordinary convolution. For groups carrying on simple activities, nevertheless, heterogeneity of age enhanced quantity of self-disclosed health issues - that in turn shows that groups of varied ages could be utilized in

particular for solving complex problems or innovations. It is believed that these outcomes can be broadened to members of the board of corporations in the public sector, in view of the activities involving intricate decision-making. Wegge, Roth, Kanfer, Neubach, & Schmidt (2008), additionally accounts for some of the positive outcomes of diversity of age as being the outcome of the participant's lengthened job tenures. Absolutely, so as to lengthen occupation tenancy of jobs, it is essential to begin early and hold on.

It's known that the only empirical research on the link amid diversity of age on the board members and corporation's performance is the one by (McIntyre, Murphy, & Mitchell, 2007). Their examination of literature connected to the purpose and role of the members of the board predominantly, records the growing utilization of organizational behavioral theory to speculate purpose of the board and enhance processes of the board. The researchers allude that studies in governance need to emphasis initiating and assessing a theoretically resonate model of effectiveness of the board, instead of attempting to understand team characteristic variables to performance of corporations (Wegge, Roth, Kanfer, Neubach, & Schmidt, 2008).

(McIntyre, Murphy, & Mitchell, 2007) hypothesize that an enterprise's returns would be inferior in the instance of little or extraordinary disparity in the board members ages than in the situation of modest disparity and that performance would also growth with the mean board members age. The study information was centered on corporations in Canada of the TSE 300 Composite Index and performance was determined employing Tobin's Q. The outputs were established to be in sustenance of the first hypothesis, i.e. regarding age diversification, but no sustenance would be established for the useful impacts of improved mean age. There was no endorsement given for the prime degree of diversity of age.

The theoretical discussions for encouraging diversity of age at senior management team are varied. Murray (1989), alludes that a homogenous governance organ (minimum degree of diversity) is composed of persons who shared common attributes that guides to guarantee improved communication and goal congruence. Nonetheless, Houle (1990), evince that a heterogeneous members of the board could make sure that a more effective division of labour perform at the level of the board with the older group furnishing the industry linkage, financial resources, and experience; the middleaged group responsible for the major executive roles; and a youthful group training and advancing its skills and proficiencies of the trade. In this vein, Mahadeo, Soobaroyen, & Hanuman (2012), state that homogenous members of the board of directors would cronyism, complacency, decisions based on compromises and inspire lack of stake in new strategies.

Earlier empirical research on the influence of diversity of age of executive administration team on performance of corporations were not compatible. Mahadeo, Soobaroyen, & Hanuman (2012), evaluated data from annual reports for the year 2007 of 42 enterprises registered on the Mauritius Stock Exchange and established that diversity of age as positively impacts on performance in the short-range. Alternatively, Kilduff, Angelmar, & Mehra (2000), used statistics from 35 sampled enterprises managed by an aggregate of 159 executives undertaking executive training courses, established support that heterogeneity of age of members of a team absolutely influenced performance overly. Nevertheless, some investigations established insignificant impacts between diversity of age and performance of the firm. Bunderson & Sutcliffe (2002), collected information from top members of administration team of corporate units in a Fortune 100 consumer goods entity and outcomes indicate that diversity of age does not impact on entity performance. Zimmerman (2008), examined

the association among senior executive heterogeneity and the capital obtained through initial public offering by the corporation. The researcher discovers that heterogeneity in educational framework and functional framework is linked with higher capital obtained, nonetheless, he did not establish that heterogeneity of age is important in obtaining resources at initial public offering. Other research has disclosed adverse impacts on performance.

Diversity in terms of age is a less researched diversity of the board variable. It is essential to investigate diversity of age since majority of the period persons whose ages are often above 60 years old are appointed to server on board of directors (Engelen, van den Berg, & van der Laan, 2012; Kang, Cheng, & Gray, 2007; Rondøy, Thomsen, & Oxelheim, 2006). Hence, necessary to examine whether this is ideal, or that the presence of youthful persons could have an optimistic impact on corporate performance of firms. There are distinct deduction on the impact of diversity of age on corporation's performance.

Rondøy, Thomsen, & Oxelheim (2006), determined that there was no impact amid diversity of age and firm performance in Scandinavian states. Engelen, van den Berg, & van der Laan (2012), discovered a hyperbolic association between diversity of age and performance of firms in the Netherland. This implies that diversity of age would enhance performance of firms, but up to a given level. From that level, more diversity of age could reduce performance of corporations. Mahadeo, Soobaroyen, & Hanuman (2012), established no positive impact of diversity of age on performance of firms only. Further. The researchers determined an optimistic association of diversity of age when merged with other board diversity variables, which are; age, educational background and independence in a commercial setting. Majority of studies have focused on the link between demographic diversity variables with emphasis on gender beside performance

of enterprises. The board member's effect on diversity of age in performance of corporations is scanty in the literature (Trond, Steen, & Lars (2006), (David, Frank, Betty, & W. Gary Simpson, 2010) and Waelchli & Zellers (2012)). Their studies show that the mean age in board of directors membership was negatively associated with corporate financial performances thus show that when the mean age within the members of the board upsurges the financial performances of the corporation would decline. The key driver supporting the negative association is the decay of cognitive power (Waelchli & Zellers, 2012).

Huse & Rindova (2001), argue that members of the board must represent various types of shareholders. The researchers indicate that directors age diversity assist in the exercise of generating distinct perspectives, consensus and views. It is further argued that a firm attracts clients in varied age sets as a result of many different amenities and products hence so as to stand for dispersion of stakes of clients as a result of age spread, boards requires its members to be from varied age groups to improve differences in views in member's contributions. Serfling (2012), in his study on CEO age, underinvestment, and agency cost, argue that CEO's age could have an important influence on the enterprise's business policy choices, performance of corporations and the existence of agency cost within an enterprise. The research postulate that old CEO's has lower sales and income growth and earn lower adjusted returns on stock. Serfling (2013), in another study of CEO age and riskiness of corporate policies indicates that a business plan that goes a long with portfolio of stock consists enterprises controlled by youthful CEOs and short in portfolio of stocks comprising of firm managed by elder CEOs could create optimistic risk adjusted return.

The researcher note that CEO age could have an important influence on risk taking attitude and performance of firms. Rhodes (2004), posit that top management functions

are proven to aging effects. Gilpatrick (2000), state that boardroom is composed of middle to retirement aged members. According to Liickerath-Rovers (2010), Dutch registered enterprises stand for old and middle members of the board resulting to lack of skills and knowledge from youthful directors which certainly affect financial performance research experience, knowledge and skills from amid the older members of the board that could be learnt by youthful members. In this case skill, experience, and knowledge stay within the firm hence not lost when older directors retire. On the foundation of resource dependence theory, age diversity may contribute to enhanced dividend policy of the firm.

## 2.7 CEO Power and Dividend Policy

Agency theory postulates that CEO's are risk averse, promote self-stake and own objectives that diverge from those of investors. Consequently, CEO's are likely to engage in selfish actions at investor's cost when a chance raises (Jensen & Meckling, 1976). CEOs are therefore supposed to be monitored and offered with inducements so as to enable them act in the greatest stake of investors (Fama & Jensen, 1983). Power circulation theory exhibits management of firms as fundamentally political categorized by moving alliances and recurring power scuffle (Ocasio W. C., 1994). According to Pareto (1968), Ocasio W. C. (1994) and (Ocasio & Kim 1999), influence and corporation's decision making mechanism and resources moves and shifts between corporation's alliances and associates over a period. Ocasio W. C. (1994) and Pareto (1968), states that influence movement disputes the view that CEOs could keep alive their influence, instead the theory proposes that power wear down and dissipates over time due to political barriers coming from increased number of opponents and rivals as one advances in the organization.

The presuppositions highlighting influence movement are widely compatible with agency theory. The theories take up that CEOs are self-centered and their benefits are not necessarily lined up with shareholder's stakes. The theories also indicate that chief executive officers behavior should be monitored for the interest of the enterprise and investors. Fama E. (1980) and Fama & Jensen (1983), state that mutual monitoring of managers is necessary which involves managers monitoring managers, managers monitoring subordinates and subordinates monitoring managers. The difference in the theories in terms of monitoring is an issue of emphasis.

Agency theory acknowledges surveillance by other firm executives (Fama (1980) and Fama & Jensen (1983)). However, the backs of conjectural and factual promotes prominence on the responsibilities of the board members as a consequence of its statutory role to oversight management (Johnson, Daily, & Ellstrand, 1996). Power circulation appreciate that members of board have an obligation, but the responsibility is left unstated. According to Rediker & Seth (1995), power circulation and agency theories does not explain the optional sources of monitoring, that is whether and when members of the board and other organization managers are not effective.

Cannella & Monroe (1997), allude that strategic leadership publications considers power as a requisite weapon for magnifying organizational efficiency. CEOs power permits for speedy calculated feedback time and give a focus for exterior answerability (Finkelstein & D'Aveni, 1994). Andrews (1971), indicates that powerful managers enables victory by inspire staff to aid organizational objectives. Therefore, ensuring that organizations generate high return which results in dividend payout to shareholders.

In a study on powerful chief executive officers and their impact on enterprise performance, it was found that share returns were adjustable for organizations oversighted by powerful CEOs that proposes that connections among top managers characteristics and corporation's variables has important concerns for enterprises performance (Adams, Almeida, & Ferreiva, 2005). These investigation postulate that CEO power could influence the link amid members of diversity of the board and policy on dividend payout of enterprises.

#### 2.8 Control Variables

The study utilized corporate leverage and size as control variables. These control variables are examined in the subsequent ensuing segments.

### 2.8.1 Corporate Size and Dividend Policy

A study carried out by Taswan (2003), specify that corporation size has an optimistic effect on the enterprises worth. Organization size is a measure that pronounces the size of the corporation that could be evaluated from the aggregate worth of the corporation's assets. The size of a large enterprise displays that the enterprise is undergoing worthy evolution. Organizations with enormous evolution would find it stress-free to enter the capital market as financiers hence captures optimistic indicators for enterprises that have enormous evolution so that an optimistic response reflects the growing corporation's value. Empirical studies report that the Greek corporations pay out dividend every year in line with their targeted payout ratio that is set out by paid returns and size of these companies (Eriotis, 2005). Studies by Lloyd, Jahera, & Page (1985) and Vogt (1994), postulate that enterprises worth plays a task in describing the dividend payout ratio of corporations. They allude that massive corporations lean to be more of age and hence have simple penetration to securities markets, that minimizes their reliance on funds created from within the firm and tolerates to higher dividend disbursement proportions.

Eddy & Seifert (1988), Jensen, Solberg, & Zorn (1992), Redding (1997), and Fama & French (2000), posit that enormous corporations disperse greater volume of their disposable returns as monetary dividends, than enterprises that are small. Numerous research has verified the effect of corporation's proportions on the dividend agency affiliation. Lloyd, Jahera, & Page (1985), were amongst the leading in altering Rozeff's model by introducing "corporate proportions" as an extra variable. The researchers considered it a significant descriptive variable as huge firms are more possibly to enhance their dividend disbursements to reduce agency overheads. Their results back, Jensen & Meckling (1976) discussion that agency overheads are connected with enterprise proportions.

Holder, Langrehr, & Hexter (1998), alluded that bigger corporations have superior admission to capital markets and discover it to be easier to attract resources at lowest overheads, enabling them to disburse greater dividends to investors. This denotes an optimistic association amid dividend disbursements and corporate proportions. The positive association amid policy on dividend payout and corporate proportions was also sustained by an increase in quantity of other research (Eddy & Seifert, 1988; Jensen, Solberg, & Zorn, 1992; Redding, 1997; Holder, Langrehr, & Hexter, 1998; Fama & French, 2000; Manos, 2002; Mollah, 2002; Travlos, Murinde, & Naser, 2002; Al-Malkawi, 2007). Al-Kuwari (2009), also establish a meaningfully optimistic association amid corporate size and dividend payout. Moh'd, Perry, & Rimbey (1985) and Renneboog & Trojanowski (2011), postulate that grounded on the outcomes of past investigations, bigger businesses are anticipated to be highly likely to disburse dividends than firms that are small. Corporate magnitude is determined as a natural logarithm of total assets. This is a result of the point that big corporations would disburse high dividends to minimize agency expenses (Ghosh & Woolridge, 1988;

Eddy & Seifert, 1988; Redding, 1997). This study therefore used corporate size as a control variable due to its significance as an element of dividend policy among corporation world over.

#### 2.8.2 Leverage and Dividend Policy

Leverage/or Liquidity is defined as the enterprise's capacity to pay off short term debt (Harmono, 2014). The impact of liquidity on the corporation's cash dividend policy is aided by the signaling theory which alludes that company executive (top manager) has better information on the condition of the enterprise, therefore the company is encouraged to convey the information to shareholders (Randa & Abraham, 2009). Hence, through Leverage/ or liquidity, the firm tries to give a signal for its performance. Good liquidity is a sign that the corporation's performance is good because it is able to provide money to meet its short-range debts when due. If the company finds it difficult to meet its short-term debt, the company does not have enough cash when the debt is due. Cash dividends are distributed in cash, which means the firm must have cash available for dividend payments. Companies that have good liquidity are likely to be easy to distribute higher dividends to their shareholders. This is because companies with good liquidity will have enough cash available, so the effect of liquidity on dividend policy has a positive direction. That is, the higher the liquidity, the higher the aptitude of the enterprise to distribute dividends.

This assumption is supported by studies carried by (Ahmed, 2014) and (Olang, Akenga, & Mwangi, 2015) who posited that liquidity has an optimistic influence on policy on dividends. Aasia, Waqas, & Yasir (2011), examined the association between the financial leverage and the policy on dividend of the Karachi stock exchange enterprises listed in the 100 index. Result indicated that the debt ratio of the companies

did not significantly impact policy on dividend of the companies. Although; dividends yield had positive effect on the dividend per share sum.

An increasing quantity of research have established that the degree of financial leverage adversely upsets policy on dividends (Jensen, Solberg, & Zorn, 1992); (Agarawal & Jayaraman, 1994); (Faccio, Marchica, & Mura, 2016). Their research deduced that greatly leveraged enterprises look forward to upholding their inside cash flow to accomplish responsibilities, as a substitute to sharing available cash to investors and take care of their creditors. Nevertheless, Mollah, Keasey, & Short (2001), evaluated a developing economy and establish a direct association amid financial leverage and debt problem degree which enhance activities overheads. Mollah, Keasey, & Short (2001), indicates that corporations that have high leverage ratios has great activities expenses and are in a fragile situation to disburse greater dividends to minimize expenses of outside funding. Hence, to study the level at which debt could impact on dividend payments, their research engaged ratio of liabilities (total long term and short term debts) to aggregate stockholders' equity or the financial leverage ratio.

Al-Kuwari (2009), also established a notably adverse association amid the two. The substitute utilized for financial leverage is debt to equity ratio as utilized in all these studies. The finance literature on leverage essentially attributes the association amongst dividends and leverage to signaling impacts. An upsurge in enterprise debt degrees could assist as a reliable signal which the firm expects high subsequent cash flows. In this situation, top executives could disburse enhanced dividends to endorse this signal. Given cause and effect association amid variables, leverage lagged over one period is utilized (Casey & Dickens, 2000; Jensen, Solberg, & Zorn, 1992). Nevertheless, further writers allude that there is an opposite link between leverage and

payout. Consequently, in principle, the anticipated sign of leverage cannot be determined.

# 2.9 Research Gaps

**Table 2.1: Research Gaps** 

Author	Research areas	Findings	Gaps
Varouj, A.,	Dividend Policy and	That studies on policy on dividend have been done on both	There is still a dividend puzzle that needs to
Laurence,	the organization of	emerging and developed markets whose results posit an unstable	be addressed.
B., & Sean,	capital markets	dividend payment in developing markets, for example; in Korea,	
C. (2003)		Malaysia, Zimbabwe, India, Thailand, Turkey, Pakistan, and	
		Jordan, than in developed economies.	
Odawo, C.,	Determinants of	That dividend payout policy present an unstable dividend	There is still a dividend puzzle that needs to
& Ntoiti, J.	Dividend Payout	payments as aresult of poor and inconsistent performance and	be addressed.
(2015, June	Policy in Public Ltd	therefore, corporations need to engage in more profitable	
23)	Banks in Kenya: A	ventures in order to maximise returns for investors/shareholders	
	Case Study of CfC	stake hence the need to put in place mechanisms to ensure the	
	Stanbic Bank	free cash flow and agency problems of dividend policy is	
		managed optimally.	
Kadu, A.	Effect of Firm Value	That dividend payout policy present an unstable dividend	There is still a dividend puzzle that needs to
V., &	on Dividend Policy of	payments as aresult of poor and inconsistent performance and	be addressed.
Oluoch, O.	Public Listed Non-	therefore, corporations need to engage in more profitable	
(2018)	Financial Firms in	ventures in order to maximise returns for investors/shareholders	
	Kenya	stake hence the need to put in place mechanisms to ensure the	
		free cash flow and agency problems of dividend policy is	
		managed optimally.	

Soku, B., Kiyoung, C., & Young, S. K. (2016)	Does Corporate Board Diversity Affect Corporate Payout Policy?	That very few studies have examined board diversity as a cure to the free cash flow problems of dividend policy.	There is need to investigate diversity mechanisms that address the dividend policy puzzle among corporations like age diversity, gender diversity, professional expertise diversity and foreign diversity.
Abdelaziz, C., Narjess, B., & Fernando, Z. (2011)	Corporate Dividend Policy in Practice: Evidence from an emerging market with a tax-free environment	Studies on dividend policy have also generated mixed results with some in sustenance of the information content of dividends while others did not back the information content of dividends concept	There is still a dividend puzzle that needs to be addressed.
Basil, A., & Khaled, H. (2009).	The Association between Dividend Payout and Outside Directorship	That studies in both developed and developing markets indicate that corporate governance techniques can be possible remedies to agency problems of dividend policy.	There is still a dividend puzzle that needs to be addressed.
Vineeta, S. (2011).	Independent Directors and The Propensity to pay Dividends	Recommended an examination of independent director's characteristics that included the gender, industry experience, professional qualifications, age and education which constitutes constructs of this study.	Prior studies did not make use of CEO Power as a moderator in the relationships between diversity variables investigated and dividend policy.

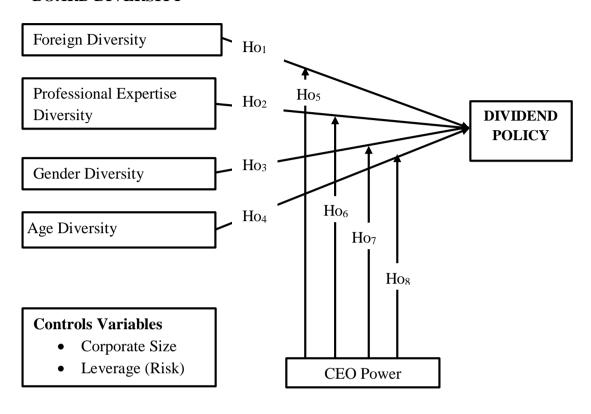
### 2.10 The Conceptual Framework

The conceptual framework presented in Figure 2.1, indicates board diversity characteristics that influence dividend policy among firms. The connotation amid members of the board diversity characteristics and dividend policy are the focus of this research. The four study hypothesis tested whether board diversity in terms of foreign diversity, professional expertise diversity, gender diversity and age diversity influences dividend policy among Kenyan firms. Board foreign diversity was evaluated by a ratio of non-Kenyan members of the board to the aggregate number of members of the board total, Board professional expertise diversity was measured by a ratio members of the board with financial prowess in the board to the board members total number, gender diversity was measured by the proportion of ladies on the board to composition of the board total, while diversity of age was measured by standard deviation of board of directors ages. Dividend policy was measured by log of dividend yield computed as dividend per share divided by market price per share (fiscal year ending stock price). The study utilized the ensuing control variables; corporate size measured as the natural logarithm of aggregate assets and leverage measured as a proportion of the book value of debt to total resources. The information was collected from NSE listed corporation's annual reports.

# **Independent Variables**

# **Dependent Variable**

# **BOARD DIVERSITY**



**Moderating Variable** 

Figure 2.2: Conceptual Framework for the effect of Board Diversity and Chief Executive Officer Power on Dividend Policy

Source: Researcher (2020)

#### **CHAPTER THREE**

#### RESEARCH METHODOLOGY

#### 3.1 Introduction

This section profile the approach and procedures that was utilized to perform the study. It describes the design of the research, investigation area, population targeted, and sampling procedures that were used. The collection of data methods and approaches that were followed in the study were also highlighted. Data analysis methods and guides on how data analysis was carried out were discussed. The section also highlights tests relevant to the study and limitations of the research.

# 3.2 Research Philosophy

The study was formulated on the philosophical and methodological approach of positivism that reality is observable (Steen & Roberts, 2011); (Mack, 2010); (Alvesson & Skoldberg, 2009); (Polit & Beck, 2008). Positivism emphasizes scientific methodological approach, statistical analysis and generalization of findings based on verifiable hypothesis (Nwokah, Kiabel, & Briggs, 2009). This study followed the positivism approach where the researcher carried out an analysis of firms listed on the NSE, Kenya to establish the impact of diversity of the board and CEO power on policy on dividend. (Durgee, 1987) Postulates that positivism studies deduce and formulates variables, hypothesis and meanings based on existing theories. This study therefore, was steered by resource dependency, signaling, agency, upper echelon and power circulation theories. The study hypothesis were formulated on the study variables. The explanatory research design was utilized to gather and manipulate the statistics from yearly reports of corporations registered in the NSE. The researcher performed analysis on descriptive statistics, correlations, regression assumption tests and fixed effect regression models to inform the inferences on the study.

#### 3.3 Research Design

John, Hafiz, Robert, & David (2007), defines research strategy as a blueprint for realizing research objectives and reply to research questions. It is a master plan specifying the processes and techniques for collecting and evaluating the requisite facts. Study strategy also denotes to the phases that scholars follow to complete their investigation from the commencement to conclusion (Amir, 2004). The method includes enquiring an investigation problem founded on a theoretical disposition, selection of research respondents and facts gathering, facts analysis and reporting the outcomes. Zikmund, Babin, Car, & Griffin (2010), describes a number of study strategy methods as descriptive, exploratory and explanatory.

This research employed an explanatory study strategy. The study employed an explanatory study strategy that was utilized to examine the causal link among variables (Thornhill, Lewis, & Saunders, 2000) and (Orodh, 2003). The study inspiration was to examine effect of board diversity and CEO influence on policy on dividend among Kenyan corporations. The explanatory study strategy was considered suitable because it allows a research to be performed in a natural situation.

In essence the research employed time series cross sectional design because data were gathered for a duration of 7 (seven) years commencing 2009 to 2015. Time series cross sectional design research are performed over a span of period. In this research the total population of companies listed with the Nairobi Securities Exchange were evaluated for statistics gathering.

# 3.4 The Study Area

The research was executed on corporations registered with the Nairobi Securities Exchange for the period span running amid 2009 and 2015 indicated in Appendix I. All

corporations registered at the NSE were selected. The companies were categorized into; Insurance, Investments, Energy & Petroleum, Commercial & Services, Automobile & Accessories, Construction & Allied, Growth & Enterprise Market Segment, Telecommunication & Technology, Agricultural, Investment Services and Manufacturing & Allied. Enterprises registered with the NSE were picked due to simplicity of obtaining their independently reviewed annual reports and financial statements by an auditor from CMA library, with an aim of gathering statistics and processing of data. Further, the corporations are vigorously merchandised as well as being reviewed by the independent auditors therefore, boosts reliabilities of statistics.

# 3.5 Target Population

The research selected all enterprises registered on the NSE. Currently, NSE has 64 enlisted companies (Appendix I). The study surveyed completely all the sixty-four (64) companies amongst all segments/divisions as classified by the Nairobi Securities Exchange that are; investment segments, which are, Construction & Allied, Energy & Petroleum, Agricultural, Automobile & Accessories, Telecommunication & Technology, Commercial & Services, Insurance, Investments, Growth & Enterprise Market Segment; and Manufacturing & Allied. The number of corporations in Automobile & Accessories, Agricultural, Banking, Commercial & Services, Construction & Allied, Energy & Petroleum, Insurance, Investments, Investment Services, Manufacturing & Allied, Telecommunication & Technology; and Growth & Enterprise Market Segment are 3,7, 11, 9, 5, 5, 6, 3, 1, 9, 1 and 4 respectively (Appendix 1). All firms were evaluated to determine if they qualified for the study.

### 3.6 Sampling Design and Procedure

Census was utilized on the study in selecting investigation the population among the registered companies in the Nairobi Security Exchange. Census is defined as an analysis

which gathers facts from all members of the population, whether people or businesses (Sekaran, 2003). The investigation used census due to small number of the research entities and to ensure that all the population members had the same chance for consideration. Since there were relatively small number of companies listed on the Nairobi Securities Exchange i.e. sixty four (64), all organizations were considered for inclusion in the investigation.

#### 3.6.1 Criteria for Inclusion and Exclusion

The purposive sampling procedure was employed by the study to establish the investigation sample since only corporation listed on the NSE for the whole time period commencing 2009 to 2015 was considered for exploration. So as to achieve uniformity in the research, purposive sampling was applied (Mugenda & Mugenda, 1999). The NSE market fact file for -2009 was used for the exploration. The key criterion considered for sampling the companies were; the audited yearly reports and financial statements was to be in existence at the Capital Market Authority library and the corporations ought to have been registered for the entire period of investigation 2009 to 2015. The corporations which could not meet the determined criteria were omitted (see appendix xi). This comprised companies which were suspended or delisted from trading in the NSE due to being an able to attain the Capital Market Authority Act desires. However, 76% of companies in every NSE sectors were represented in the investigation. The research had 49 (forty-nine) corporations that were eligible for inclusion in the study. This contributed to 343 firm year observations shown in appendix x.

#### 3.7 Data Collection

The methods of statistics gathering are discussed in the following segments;

#### 3.7.1 Source of Data

The study utilized secondary data gathered from annual reports and financial statements for businesses registered in the NSE. The facts collected from annual reports was utilized to establish policy on dividend decisions of corporations enlisted on Nairobi Securities Exchange. The annual reports were further utilized to assemble data relating to independent variables of the study. This was information on indicators of the board foreign diversity, board's professional expertise diversity, diversity of board gender and diversity of board ages as well as data on the control (corporates size and leverage) and moderating (CEO Power) variables.

#### 3.7.2 Data Collection Method and Instrument

Statistics were gathered from audited yearly reports and financial statements on corporations registered on the NSE from 2009 to 2015 applying the document scrutiny technique. Statistics were assembled on independent and dependent variables from all enterprises chosen for the study. An introduction letter was secured by the investigator from the University to Capital Market Authority library. An investigation permit was also obtained from the Government of Kenya permit issuance organization. This enabled researcher to obtain facts from Capital Market Authority library since a number of enterprises' did not update their websites with the requisite yearly reports and financial statements.

Document analysis guide (Appendix II) was exploited to collect statistics on the pointers of corporate size, foreign diversity, dividend policy and leverage. The statistics gathering was for the period of enquiry commencing form 2009 to 2015. Oso & Onen (2005), displayed that document examination schedule is a device for gathering discreet data. The statistics to be collected were of secondary nature therefore document scrutiny schedule, that could facilitate the scholar to assemble facts without disturbance and it

could result to time saving. In case of missing annual reports at the Capital Market Authority (CMA) library, NSE was resorted to for the purposes of achieving the objective of the study.

#### 3.7.3 Measurements of Variables

Dependent and independent variables were measured using theoretical construct guiding the study. The variables measured included dependent variable; dividend policy as well as independent variables; board diversity operationalized as foreign diversity, diversity of professional expertise i.e. the financial expertise, gender diversity and age diversity. The moderating variable was also measured; CEO power. The variables are explained as indicated below.

# 3.7.3.1 Dependent Variable – Dividend Policy

Past research has utilized different measures of dividend policy. (Soku, Kiyoung, & Young, 2016), used various measures for dividend policy; as dummy variable that is equals to one if an enterprise disburses dividend and zero if not, dividend to total assets ratio and dividend-price ratio of a share determined as dividend per share divided by fiscal year ending share price. (Soku, Kiyoung, & Young, 2016), further indicates that integrating the stock price, dividend yield could estimate a disbursement policy which replicates investors' perspectives. Conversely, this estimate could be impacted by movement in stock price instead of the variations in dividends. The researchers also measured dividend policy by dividend yield (dividend per share) divided by earnings per share as the principal dividend measure in tobit regression. The researchers also utilized dividend dummy; one for dividend paying companies and zero otherwise for the logit regression (Basil & Khaled, 2009); (Omneya, Ahmed, & Sabri, 2008). Jorge (2002), in a study on dividend policy and managerial entrenchment defined dividend

policy by constructing a five year mean ratio of gross ordinary annual dividends announced (interim plus final) to after tax earnings (before extraordinary items).

DeAngelo, DeAngelo, & Douglas (1992), point out that consonant with reasoning by Modigliani & Miller (1659), declining unusual income items allow for a better rationale for companies' dividend decisions. According to Rozeff (1982), a mean payout ratio is favored to annual payout amounts, to minimize the effects of short-term and noisy elements in short-term earnings. Ratios of dividend lower than zero or in greater than one are eliminated due to lack of statistical and economic significance (Farinha, 2003). This study adopted the dividend policy applied by (Soku, Kiyoung, & Young, 2016), Basil & Khaled (2009) and Omneya, Ahmed, & Sabri (2008), defined as dividend yield computed as dividend per share divided with market price per share (fiscal year ending stock price). This is because the method is widely used among empirical studies. The formulae for dividend payout is indicated below;

Dividend Payout = 
$$\frac{\text{Dividend per share}}{\text{Market price per share}}$$

### 3.7.3.2 Independent Variables

Prior studies indicate that different scholars have measured diversity variables using varied methods. The diversity variables considered for this study are foreign, professional expertise i.e. financial expertise, gender and age.

According to Marimuthu (2008), foreign diversity has been measured on a ratio scale (Non Malay board members divided with the board members total). Some scholars have determined foreign diversity by means restricted to evaluating training qualifications, photographs and foreign holdings from the annual reports method underscored by (Bilimoria & Wheeler, 2000); (Mason & James, 2001), Golden & Zajac (2001) and (Walt & Ingley, 2003) in (Walt N. V., Ingley, Shergill, & Townsend, 2006). This study

used the methods alluded to by Marimuthu (2008), hence foreign diversity was measured on a percentage scale (Non Kenyan members of the board divided with the total number of board members). The formulae is as shown below;

Foreign Diversity = 
$$\frac{\text{Non Kenyan board members}}{\text{Total number of board members}} \times 100$$

Professional expertise on boards of corporations was examined through use of listed firms on the NSE. In Kenya the Capital Markets Act (Cap. 485A) enacted under a gazette notice No. 3362 provides for the members of board appointment in terms of professional expertise or skills diversity so as to guarantee that no small group of personalities or individual influence the board's resolution building procedures. Information on professional expertise was obtained from director's biographies in annual reports and/or websites of companies. These allowed for classification of directors by their professional expertise. The repeat director's observations, alternate directors and companies where information on professional expertise would not be found was removed from data of listed firms in the NSE.

Ness, Miesing, & Kang (2010), indicates that expertise in terms of professional expertise significantly influences firm performance. Ness, Miesing, & Kang (2010), determined expertise in terms of professional heterogeneity using the Herfindahl-Hirschman heterogeneity index which is calculated as  $1-\sum_{i=1}^{n}p_i^2$  where  $p_i$  is the board members percentage in the i<sup>th</sup> group and calculated the proportion of board members with expertise in finance by working out the ratio of board members who worked for banks, financial institutions, or accounting enterprises was divided with the board members total number. Agrawal & Chadha (2005), posit that board members with expertise in terms of financial or accounting are board members with a CFA, CPA, or know-how in corporate financial administration for instance, a controller, chief

financial officer, a treasurer or Vice President of finance. Anderson, Mansi, & Reeb (2004), Guner, Malmendier, & Tate (2008) and Francis, Hasan, & Wu (2012), categorized financial experts into inside and outside financial expertise. Anderson, Mansi, & Reeb (2004), Guner, Malmendier, & Tate (2008) and Francis, Hasan, & Wu (2012), further alludes that financial experts from inside the organization comprise of corporations' accountants, treasurers, CFOs and Vice Presidents of finance while external financial experts refers to external board members with credentials in mutual funds, insurance, corporate law, accounting, commercial banking, investment banking, auditing, hedge funds among others. This study examined board professional expertise in terms of financial expertise in the board. The study defines board financial expertise board members with qualifications in such areas as CPA/CA/ACCA, accounting/finance/ economic related degree or CFO and experiences related to chief finance officer, external auditor, member of a finance state agency, chief accounting officer, management controller, banker, commercial lawyer (included since commercial lawyers could have particular financial expertise in areas like acquisitions and mergers) and other financial occupations such as investment advisors, finance academic or accounting, political occupations in the arena of economics among others. The board members financial expertise was therefore determined by the proportion of the financial expertise on the board to the total number of directors on the board of firms. The formulae for financial expertise is highlighted below;

 $Professional\ expertise = \frac{Proportion\ of\ the\ financial\ expertise\ on\ the\ board}{Total\ number\ of\ directors\ on\ the\ board}$ 

Gender diversity of members of the board have been assessed by scholars in diverse methods; Adams & Ferreira (2009), Gul, Shnidhi, & Mg (2011), Carter, Simkins, & Simpson (2003), Marianova, Plantenya, & Remery (2010), and Ross (2007), appraised

the board members gender diversity as a proportion of females in the directors board as a function of the number of females in the configuration of the board to the total number of members of the board. In other earlier investigations board gender diversity has been evaluated as a dummy variable with the following scores; value of one if at least 1 woman sits on the board and value of 0 if there are no female on the board (Gul, Shnidhi, & Mg, 2011); (Dezso & Ross, 2012); (Marianova, Plantenya, & Remery, 2010); (Adams & Ferreira, 2009) and (Campbell & Minyuez-Vera, 2008). This research utilized the technique employed by (Adams & Ferreira, 2009), Gul, Shnidhi, & Mg (2011), Carter, Simkins, & Simpson (2003), Marianova, Plantenya, & Remery (2010) and Ross (2007), where diversity of the board gender was determined as a ratio of females in the board membership.

Prior studies on board age diversity have measured age in terms of spreading of all members of the age in the board. Siciliano (1996)) measured this variable by dividing ages of board members into five groups; under 20, 20-35, 36-50, and 51-65 and over 65. The statistics collected provided data in aggregate proportions in every age group. The diversity scale was computed as a percentage in each age group, the maximum proportion of any sub-groupings is deducted from 100 (a higher score representing better diversity) hence multiplied by the total quantity of groups with any amount of demonstration (Siciliano, 1996). Other scholars have used the mean board members age for robustness confirmation of outcomes (Waelchli & Zellers, 2012); ( (David, Frank, Betty, & W. Gary Simpson, 2010); (Marianova, Plantenya, & Remery, 2010). McIntyre, Murphy, & Mitchell (2007), measured board members age diversity as a standard deviation of ages. Age diversity in this study was evaluated in terms of the method used by Siciliano (1996), where dispersion of ages was considered and also the

method adopted by McIntyre, Murphy, & Mitchell (2007), where standard deviation of ages was utilized.

# 3.7.3.3 Moderating Variables - CEO Power

This study had Chief Executive Officer Power as the moderating variable. CEO power is referred to as resolution creation ability congregated in the CEO's position. Power is an observation that have dissimilar features to it hence not all of them are merely noticeable. This research used CEO power mechanism embraced by Adams, Almeida, & Ferreiva (2005), whereby the CEO power was evaluated as a dummy that specified if the chief executive officer (CEO) is the single insider on the director's board. It was anticipated that if an insider manager (other than CEO) sits on the directors' board, she/ he is more likely to participate in directors' decision-making with the CEO therefore it is implied that CEOs in enterprises with more than one inside manager in the directors' board to have lesser influence authority (Papadakis, 2006). The developed a score among companies listed on NSE as a dummy equal to 1 (one) if the CEO was the only insider on the board and 0 (zero) if CEO was not the only insider on the board. This created a score for each annual report, which was manipulated for every corporation by actual number of scores by an enterprise to the aggregate number of scores included in the index. The researcher constructed an index (CEO Power index) to determine the moderating variable utilizing the ensuing procedure (Cooke, 1992);

CEO Power Index = 
$$\frac{\sum_{j=1}^{n} \frac{dj}{n}$$

Where dj = 1 if CEO is the single insider in the directors' board

= 0 if more internal employee members participate in the directors'

board with the CEO

n = Organizations number

Therefore, CEO Power was evaluated as a ratio of actual score awarded for each enterprise to the optimal score achievable by all the organizations. The moderating variable was represented by the CEO Power indices.

#### 3.7.3.4 Control Variables

The control variable in this research included corporate magnitude and leverage (risk) of the firm. This was viewed as features of corporations that were likely to impact the dependent variables in the study. Corporate size is a determinant of company performance and more likely to influence the link amongst board members' diversity and policy on dividend decisions in enterprises. Studies show that large enterprises are more visible in the public eye hence have to act as role models. Large corporations are under communal pressure to embrace members of the board diversity (Marianova, Plantenya, & Remery, 2010) and Adams & Ferreira, (2004). Corporate size affects labor output through organizational settings and large scale of operations (Koch & McGrath, 1996). Corporate size is therefore anticipated to have an optimistic effect on the enterprise's diversity of the board and dividend policy. Prior studies have used natural logarithm of aggregate assets as a measure of corporate magnitude (Gray & Nowland, 2014); (Byoun, Chang, & Kim, 2016) and (David, Frank, Betty, & W. Gary Simpson, 2010). Consistent with previous studies, the present investigation adopted measures of natural logarithm of aggregate assets as a measure of corporate magnitude.

According to (Waelchli & Zellers, 2012), leverage is the utilization of funds borrowed so as to enhance returns chances hence could be connected to one of the dependent variables. Consistent with past research, this study measured leverage as a proportion of the book worth of liability to aggregate assets (Campbell & Minyuez-Vera, 2008);

(Dezso & Ross, 2012); (Waelchli & Zellers, 2012); (Byoun, Chang, & Kim, 2016) and (Walt N. V., Ingley, Shergill, & Townsend, 2006).

# 3.7.3.5 Measurement of Variables Summary

VARIABLE	MEASUREMENT			
Foreign Diversity	A ratio of Non-Kenyan members of the board divided by the aggregate number of members of the board on the firm's board.			
Professional Expertise	A ratio of financial expertise divided by the aggregate number of members of the board of directors on the firm's board.			
Gender	Log of fraction of female board members on the board to the aggregate board composition.			
Age	Standard deviation of ages			
Corporate Size	Natural-logarithm of aggregate assets.			
Leverage (Risk)	Proportion of book value of debt to the aggregate assets.			
CEO Power	A dummy equal to 1 (one) if the CEO is the only insider on the directors board and 0 (zero) if CEO is not the only insider on the board.			
Dividend Policy	Natural-log of dividend per share divided by market price per share (fiscal year ending stock price).			

Source: Survey Data (2020)

# 3.8 Data Collection Procedures

The investigator acquired an introduction memorandum to the Capital Market Authority from School of Business and Economics, Moi University and an investigation permit from the authorized government agency in Kenya. This facilitated ease of accessibility to the data for the study.

The researcher identified four aides with background in accounting and finance hence oriented them on the research process encompassing of facts assembly techniques putting into consideration the ethical issues that could be possible to occur in the path of the data assembly. The scholar supervised, harmonized and gave guidance to the investigation assistants in the path of data gathering process. All study tools were confirmed and given back in totality for assurance that all the requisite data were assembled before the statistics examination and coding. The study utilized numerical string coding method in preparing the data collected for examination.

### 3.9 Data Processing, Analysis and Presentation

#### 3.9.1 Data Processing

Statistics processing encompasses cleaning, coding, screening and selecting a suitable facts examination technique for hypothesis testing. Coding encompasses allocating a value to every objects on the document examination plan for simplicity of scrutiny. The procedure of cleaning and screening of statistics encompasses inspection for omitted values and verifying if there were any discrepancies in the facts assembled.

### 3.9.2 Panel Data Diagnostic Tests

The study performed statistical analysis to determine suitability of the data for the numerous tests that were to be executed. The tests aimed at establishing whether the data met the cardinal requirements for linear regression analysis and the specific model to be utilized. The study performed the following tests; normality, multicollinearity, autocorrelation, unit root, poolability and hausman. This helped in ensuring that corrective measures were carried out on the study data.

### 3.9.2.1 Normality Test

In regression analysis it is always essential to establish if all statistics of the study are normally distributed. Gujarati & Porter (2009), postulate that normality condition must be satisfied before other statistical tests like autocorrelation, heteroscedasticity and multicollinearity can be executed, to confirm whether the error terms are normally dispersed or not. Normality test corroborates if the error terms are normally spread or otherwise in the model. It's affirmed by central limit theorem that once a research sample magnitude is more than 100 annotations the statistics inclines to be normally dispersed (Gujarati & Porter, 2009). Williams, Gomez Grajales, & Kurkiewicz (2013), alludes that it becomes possible to make interpretations on regression parameters in the population of the sample even when the sample size is relatively small. This study used critical ratios of kurtosis, skewness and Jarque-Bera indicators to test data normality. The study also applied the central limit theorem on normality of distribution to determine if the model is normally distributed.

# 3.9.2.2 Multicollinearity Test

Consistent with Gujarati & Porter (2009), multicollinearity take place where independent variables are significantly connected among each other in a regression model to the level that the actual connection between the dependent and independent variables are affected hence contributing to damaging singularity consequences that averts the approximation of any coefficients, escalate standard error, coefficients being inaccurately predicted and incorrect signs on the regression analysis outputs. This study used two different approaches so as to evaluate multicollinearity problem that were variance inflation factors (VIF) and correlation matrix. Correlation matrix gives a relationship between explanatory variables of the study. According to Khalid (2006), there has been no consensus among scholars concerning the cut off correlation

ratio/percentage, academics propose that correlation larger than 0.7 could cause multicollinearity problem. Naser, Al-Husaini, & Nuseibeh (2006) and Khalid (2006), designate that there is no compact and fast principle on the value of VIF at which multicollinearity creates a problem, however some researchers submit that VIF of more than 10 endorses presence of multicollinearity problem.

#### 3.9.2.3 Autocorrelation Test

Gujarati & Porter (2009), defines autocorrelation as the association or correlation amid the number of observations methodical in the time frame and error term in the two times. The research performed a test of the associations on the error terms in the study model and determine if the terms were stationary. Durbin-Watson (DW) test was utilized to determine autocorrelation. According to Aga & Safakli (2007) and Vogt & Johnson (2011), absence of autocorrelation problem is exhibited when Durbin Watson is between 1.5 and 2.5.

#### 3.9.2.4 Panel Unit Root Test

Unit root test is of paramount importance in determining if the time series facts are static or non-stationary. Gujarati (2004), posit that stationarity time series is one whose variance and mean are static over period and rate of covariance amid any two time frames only on lag or distance or gap amongst two time periods and not real time at which the covariance is calculated. In time series and panel data, stationarity is of essence to enable forecasting and description of future behavior based on the analysis. The stationarity can only be achieved if the data does not have unit root. Patterson (2011) and Patterson (2012), alludes that there has been substantial literature concerning the statistical theory and application of unit root tests in time series. Unit root tests have been regularly applied in the empirical analysis to appraise the dynamics

of numerous economic time series such as interest rates, consumption, industrial production and aggregate output.

Comprehension of whether a time series contains a unit root or not gives direction as to how the fundamental movement in the series could be modeled as well as establish the level of tenacity in the economic variable. Since the publication of the seminal works by (Dickey & Fuller, 1979; Dickey & Fuller, 1981), there has been a sizeable literature committed to conceiving unit root tests for different stipulations of the trend. For instance, Perron (1989), postulates that conclusion extracted from the Dickey-Fuller unit root tests may be misleading if the underlying model disregards a break in the mean or trend of the time series that may result from major events such as the Great Depression or the oil price shock. While the examinations by Perron (1989), as well as further studies, do account for the existence of structural breaks, the practitioner cannot determine whether inferences drawn by these tests are affected by the possible misspecification of the underlying model.

Phillips & Perron (1988), evolved a number of unit root tests that have become prevalent in the examination of financial time series. The Phillips-Perron (PP) unit root tests vary from the ADF tests predominantly in how heteroskedasticity is dealt with and serial correlation in the errors. In particular, where the ADF tests approximate the ARMA structure of the errors in the test regression by use of a parametric autoregression, the PP tests disregards any serial correlation in the test regression. The other tests available for unit roots are Im-Levin-Lin and Chu test, Breitung's test, Pesaran and shin test, and Hadri's residual based on LM test (Baltagi, 2005). The unit root test for this study was carried out using Phillips-Perron (PP) which tests null hypothesis that panels are stationary/do not have unit root ( $H_a$ :  $\alpha$ >0). All the variables in this research were stationary except for moderating variable (CEO Power). It was

therefore, necessary to carry out the first difference [D (var)] on the CEO Power in order to correct the non-stationarity.

# 3.9.3 Model Specification Tests

The study carried out tests to determine the best suitable model for regression analysis. The poolability and hausman tests were performed to guide in choice of the appropriate model for the study as highlighted below.

### 3.9.3.1 Poolability Test

In accordance with Park (2011), poolability is defined as the procedure of evaluating whether the panel data are poolable so as the gradients of the regressions are the similar across all distinct firms or the time periods. The likelihood Ratio Test was utilized to test poolability of the data. The Likelihood Ratio Test was used in evaluating if the regression model applicable could be a pooled OLS or fixed effect model in the first place. When the outcomes of the Likelihood Ratio Test are significant then it implies that the model is not poolable therefore another test have to be applied to determine whether the model is a random effect or a fixed effect model.

#### 3.9.3.2 Hausman Test

Hill, Graffiths, & Lim (2011), alludes that Hausman test is utilized to match the coefficient approximations of the random effects model and fixed effect model. Hausman test is utilized to determine appropriateness of the model whether the most applicable model is neither a fixed effect model nor a random effect model. The study measured suitability amongst the two models at 1% significance level.

# 3.9.4 Data Analysis

The data was gathered from reviewed annual reports and financial statements of organizations enumerated in NSE. The statistics gathered was quantitatively dispensed.

The facts scrutiny on the research was executed using EViews 7 Statistical package. Descriptive statistics was discharged on the independent and dependent and variables of the study which were policy on dividend, foreign diversity, professional expertise diversity, age diversity and gender diversity. These measurements were standard deviation, median and mean.

The statistics on correlations was executed between the investigation variables which were policy on dividend, age diversity, diversity of gender, foreign diversity and professional expertise diversity, in order to determine their degree of association. Regression analysis was also executed to determine the impact of age diversity, diversity of gender, foreign diversity and professional expertise diversity on dividend policy. The study adopted the model used by (Boon-itt & Yew Wong, 2011). The study utilized fixed effect multiple regression analysis in the ensuing model:

$$Y_{ij} = a_0 + \beta_1 X_{1ij} + \beta_2 X_{2ij} + \beta_3 X_{3ij} + \beta_4 X_{4ij} + \beta_5 X_{5ij} + \beta_6 X_{6ij} + \beta_7 X_{7ij} + \beta_8 X_{8ij} + M_{ij} + \epsilon$$

Where  $Y_{ij} = Dividend policy$ 

 $X_{1ij}$  = Foreign diversity of the board

 $X_{2ij}$  = Professional expertise

 $X_{3ij} = Gender$ 

 $X_{4ij} = Age$ 

 $X_{5ij}$ = CEO Power moderating the link amid foreign diversity and policy on dividend

 $X_{6ij}$ = CEO Power moderating the link between professional expertise and dividend policy

 $X_{7ii}$ = CEO Power moderating the link between gender and dividend policy

 $X_{8ij}$ = CEO Power moderating the link between age and dividend policy

C= Control variables (corporate size, Leverage)

M<sub>ij</sub>= M stands for the moderator variable (CEO power)

 $\beta$  = Coefficients of the independent variables

a<sub>0</sub>= A constant or the value of Y when all X values are Zero.

 $\varepsilon$  = An error term, normally distributed around a mean of 0.

#### 3.9.5 Data Presentation

The results of this study are presented using tables, descriptions and discussions.

# 3.9.6 Model Specifications

The study developed the models in form of the controls, direct effect and moderation effect. The introduction of the moderation effect is a concept that has gained prominence in management science and accounting research. Baron & Kenny (1986), postulate that a moderator variable is a qualitative or quantitative variable that impacts on the strength and/or direction of the association amongst an independent or predictor variable and a criterion or dependent variable. This study borrowed the concept of moderation effect in order to enrich the research hence avoid the hypothetical assumption that there is a moderation effect of CEO Power amid board members diversity and policy on dividend. The hypothesis were set to examine the moderation influence on the association among diversity of board members and policy on dividend.

Linear additive regression models were used to develop the direct and moderated relationships between predictor and response variables of the study. The regression models are expressed mathematically as indicated below;

#### **Control Variables Model**

DIVPOLICY<sub>ii</sub>=  $a_0 + \beta_1 SIZE_{ii} + \beta_2 LEVERAGE_{ii} + \varepsilon_{ii}$  [1]

#### **Direct Effect Model**

DIVPOLICY<sub>ij=</sub>  $a_0+ \beta_1 SIZE_{ij}+\beta_2 LEVERAGE_{ij}+ \beta_3 FOREIGN$ + $\beta_4 PROFEXP_{ij}+\beta_5 AGE_{ij}+\beta_6 GENDER_{ij}+\epsilon_{ij}$  [2]

#### **Moderating Effect Models**

DIVPOLICY<sub>ij=</sub>  $a_0$ +  $\beta_1$ SIZE<sub>ij</sub>+ $\beta_2$ LEVERAGE<sub>ij</sub>+  $\beta_3$ FOREIGN

DIVERSITY<sub>ii</sub>+ $\beta_4$ PROFEXP<sub>ii</sub>+ $\beta_5$ AGE<sub>ii</sub>+ $\beta_6$ GENDER<sub>ii</sub>+  $\beta_8$ FOREIGN<sub>ii</sub>\*CEOPOWER<sub>ij</sub> [3]

DIVPOLICY<sub>ij=</sub>  $a_0$ +  $\beta_1$ SIZE<sub>ij</sub>+ $\beta_2$ LEVERAGE<sub>ij</sub>+  $\beta_3$ FOREIGN

DIVERSITY<sub>ii</sub>+ $\beta_4$ PROFEXP<sub>ii</sub>+ $\beta_5$ AGE<sub>ii</sub>+ $\beta_6$ GENDER<sub>ii</sub> +  $\beta_9$ PROFEXP<sub>ii</sub>\*CEOPOWER<sub>ii</sub> [4]

DIVPOLICY<sub>ij=</sub>  $a_0$ +  $\beta_1$ SIZE<sub>ij</sub>+ $\beta_2$ LEVERAGE<sub>ij</sub>+  $\beta_3$ FOREIGN

DIVERSITY<sub>ij</sub>+ $\beta_4$ PROFEXP<sub>ij</sub>+ $\beta_5$ AGE<sub>ij</sub>+ $\beta_6$ GENDER<sub>ij</sub>+  $\beta_{10}$ AGE<sub>ij</sub>\*CEOPOWER<sub>ij</sub> [5]

DIVPOLICY<sub>ij=</sub>  $a_0+ \beta_1 SIZE_{ij}+\beta_2 LEVERAGE_{ij}+\beta_3 FOREIGN$ 

DIVERSITY<sub>ii</sub>+ $\beta_4$ PROFEXP<sub>ii</sub>+ $\beta_5$ AGE<sub>ii</sub>+ $\beta_6$ GENDER<sub>ii</sub>+  $\beta_1$ GENDER<sub>ii</sub>\*CEOPOWER<sub>ii</sub> +  $\epsilon_{ij}$ [6]

DIVPOLICY<sub>ij=</sub>  $a_0 + \beta_1 SIZE_{ij} + \beta_2 LEVERAGE_{ij} + \beta_3 FOREIGN$ 

DIVERSITY<sub>ij</sub>+ $\beta_4$ PROFEXP<sub>ij</sub>+ $\beta_5$ AGE<sub>ij</sub>+ $\beta_6$ GENDER<sub>ij</sub>+  $\beta_7$ CEOPOWER<sub>ij</sub> +  $\epsilon_{ij}$  [7]

 $DIVPOLICY_{ij=} a_0 + \beta_1 SIZE_{ij} + \beta_2 LEVERAGE_{ij} +$ 

 $\beta_3 FOREIGN_{ij} + \beta_4 PROFEXP_{ij} + \beta_5 AGE_{ij} + \beta_6 GENDER_{ij} + \beta_7 CEOPOWER_{ij} +$ 

 $\beta_8 FOREIGN_{ij} * CEOPOWER_{ij} + \beta_9 PROFEXP_{ij} * CEOPOWER_{ij} + \beta_{10} AGE_{ij} * CEOPOWER_{ij} * CEOPOWER_{ij} * CEOPOWER_{ij} * CEOP$ 

 $\beta_{11}$ GENDER<sub>ij</sub>\*CEOPOWER<sub>ij</sub> +  $\epsilon_{ij}$  [8]

Where DIVPOLICY<sub>ij</sub> is the dividend policy of firms I (i= 1, 2,.....49) in time t (t = 1,2, ....,7),  $\beta$  (j= 0, 1, ....., 11) are the regression parameters, SIZE<sub>ij</sub> and LEVERAGE<sub>ij</sub> are corporate size and leverage of firms i in time j respectively, FOREIGN<sub>ij</sub>, PROFEXP<sub>ij</sub>, AGE<sub>ij</sub>, and GENDER<sub>ij</sub> are foreign diversity, professional expertise, age and gender diversities of firms i at times j and CEOPOWERij is chief executive officer power in firms i and time j and  $\varepsilon_{ij}$  are the random error terms.

#### 3.10 Limitation of the Study

The key inadequacies was that the research experienced a situation where some companies' data could not be found for the entire period of the study. The data that was available was for only 49 corporations out of 64 companies. These were corporations which were either suspended or delisted from trading in the NSE or had just been listed in the Nairobi Securities Exchange hence were legally not required to file their returns with the CMA and NSE in the whole period of research. These were firms like Uchumi Super Market Limited, CMC Limited, Home Africa Limited, Atlas Development and Support Services Limited, Kurwitu Ventures Limited among other firms but this did not affect the outcome of the study. The firms also listed on the NSE are still very few hence the data collected may not give more accurate results since high level statistical tests could not be administered or applied.

### 3.11 Ethical Considerations

(Gallagher, 2009), allude to ethical issues as the standard of behavior and concrete processes a research should strive to adhere to. (Louis, Lawrence, & Keith, 2007), assert that ethical issues could come from the types of issues scrutinized by social scientists and the approaches utilized to acquire reliable and valid information. The research problems may come from context of the study, procedures to be adopted, research

project under consideration, type of facts gathered, statistics gathering technique and features of research population.

The ethical issues in this investigation included the following;

- Access acceptance The authority to access annual reports was sought from
  the Capital Market Authority librarian through use of the introductory letter
  from the University's, School of Business and Economics and the investigation
  permit acquired from National Commission for Science Technology and
  Innovation.
- 2. **Privacy -** The individual company's right of privacy was obeyed. The research assistants did not obtain information from annual reports of companies that was not required.
- 3. **Anonymity -** The identity of individual corporations by names involved in the study was not disclosed to the public through the research report or any means.
- 4. **Confidentiality -** The CMA librarian was assured that the information obtained from the annual reports were for academic purpose only and were to be held with confidence by the researcher. The researcher agreed to keep the promise.
- Betrayal The data acquired were not to be disseminated in any form to humiliate the companies.

The researcher ensured that all the ethical issues were adhered to at all points of the study process. Required authorizations were obtained from the relevant bodies before commencement of data gathering and the CMA Librarian assured that the statistics gathered will be utilized for academic purposes only.

#### **CHAPTER FOUR**

#### DATA ANALYSIS, PRESENTATIONS AND INTERPRETATIONS

#### 4.1 Introduction

The section presents the analysis of facts and discussions of the facts gathered on examined annual reports and financial statements of Kenyan corporations listed on the NSE using tools discussed in chapter three. The data was collected through document analysis schedule. This chapter is subdivided according to the study objectives and findings presented using figures and tables to illustrate and summarize the outcomes of the research.

# **4.2 Sample Characteristics**

The research evaluated audited annual reports and financial statements of 64 enterprises registered in the NSE between 2009 and 2015 from all the segments as classified by the Kenyan securities exchange market. The research necessitated all the companies ought to have been registered throughout the entire period of the study and all the yearly reports and financial statements should have been present for the entire time of the research. The approach assured that all firms were given equivalent chance for the investigation incorporation so as to attain the study purposes. The process occasioned a sample of 49 enterprises to be incorporated in the research which represented 343 firm year observations.

#### **4.3 Descriptive Statistics**

In order to ascertain aggregate configurations in the research variables the standard deviation, mean, maximum and minimum was executed from 343 firm year observations for all the research variables. The output and results of descriptive

statistics highlighted in appendix iii and table 4.1 below respectively are discussed in the following section;

The policy on dividend contributed the maximum and minimum values of 3.296 and 0.799 respectively occasioning a range of 4.095. On an average a firm paid dividend of 1.2 per share. The standard deviation showed a deviation of 0.67, the outcomes therefore, indicates that there existed a great disparity in dividend payment in NSE enlisted enterprises. The corporate size contributed a maximum and minimum scores of 6.13 and 1.69 correspondingly contributing a range of 4.44 with an average score of 4.14 and a standard deviation of 0.80 suggesting that there is a high variation in corporate sizes in firms listed in the NSE. The leverage among firms had the maximum and minimum of 3.99 and 0.01 respectively, contributing a range of 3.98 with an average score of 0.58 and standard deviation of 0.42 which indicates a medium variation in leverage levels among firms listed in the NSE. Foreign diversity had a maximum and minimum scores of 0.08 and 0.98 respectively, hence occasioning a range of 0.90 with an average score of 0.38 and a standard deviation of 0.20 which indicates a low variation in foreign diversity among NSE listed firms.

Professional expertise had the maximum and minimum scores of 0.92 and 0.17 correspondingly contributing a range of 0.75, an average score of 0.51 and a standard deviation of 0.20 which postulate that there was a low difference in professional expertise in NSE listed companies. Age exhibited the maximum and minimum scores of 21.68 and 4.15 contributing to a range of 17.53 with an average score of 12.99 and a standard deviation of 3.665 which indicates a very high variation in ages of board of directors among NSE listed companies. Diversity of gender contributed a maximum and minimum scores of -0.693 and -2.659 correspondingly, contributing to a range of 1.966 with an average score of -1.72 and a standard deviation of 0.46 positing a medium

deviation in diversity of gender amid NSE registered firms. CEO power contributing to a maximum and minimum values of 0.003 and 0.0 contributing to a range of 0.003 with a mean of 0.002 and a standard deviation of 0.001 suggesting that there was a very minimal variation in CEO power in firms listed on the NSE. The descriptive statistics are presented in Table 4.1, on the independent and dependent variables used in the research.

**Table 4.1: Descriptive Statistics** 

				Std.		Critical Ratio		Critical Ratio	
Mean	Median	Max	Min	Dev.	Skewness	of Skeweness	Kurtosis	of Kurtosis	Obs
1.211	1.264	3.296	-0.799	0.666	-0.447	-3.362	3.496	13.218	343
4.138	4.090	6.130	1.690	0.802	-0.066	-0.501	2.665	10.077	343
0.579	0.540	3.990	0.010	0.419	4.350	32.891	30.764	116.300	343
0.381	0.346	0.980	0.080	0.200	0.270	2.041	2.104	7.956	343
0.510	0.500	0.920	0.170	0.198	0.203	1.533	2.040	29.161	343
12.985	13.690	21.680	4.150	3.665	-0.431	-3.262	2.401	9.077	343
-1.720	-1.725	-0.693	-2.659	0.460	0.100	0.756	2.274	8.597	343
0.002	0.003	0.003	0.000	0.001	-0.684	-5.172	1.468	5.549	343
	1.211 4.138 0.579 0.381 0.510 12.985 -1.720	1.211     1.264       4.138     4.090       0.579     0.540       0.381     0.346       0.510     0.500       12.985     13.690       -1.720     -1.725	1.211       1.264       3.296         4.138       4.090       6.130         0.579       0.540       3.990         0.381       0.346       0.980         0.510       0.500       0.920         12.985       13.690       21.680         -1.720       -1.725       -0.693	1.211       1.264       3.296       -0.799         4.138       4.090       6.130       1.690         0.579       0.540       3.990       0.010         0.381       0.346       0.980       0.080         0.510       0.500       0.920       0.170         12.985       13.690       21.680       4.150         -1.720       -1.725       -0.693       -2.659	1.211       1.264       3.296       -0.799       0.666         4.138       4.090       6.130       1.690       0.802         0.579       0.540       3.990       0.010       0.419         0.381       0.346       0.980       0.080       0.200         0.510       0.500       0.920       0.170       0.198         12.985       13.690       21.680       4.150       3.665         -1.720       -1.725       -0.693       -2.659       0.460	Mean         Median         Max         Min         Dev.         Skewness           1.211         1.264         3.296         -0.799         0.666         -0.447           4.138         4.090         6.130         1.690         0.802         -0.066           0.579         0.540         3.990         0.010         0.419         4.350           0.381         0.346         0.980         0.080         0.200         0.270           0.510         0.500         0.920         0.170         0.198         0.203           12.985         13.690         21.680         4.150         3.665         -0.431           -1.720         -1.725         -0.693         -2.659         0.460         0.100	Mean         Median         Max         Min         Dev.         Skewness         of Skeweness           1.211         1.264         3.296         -0.799         0.666         -0.447         -3.362           4.138         4.090         6.130         1.690         0.802         -0.066         -0.501           0.579         0.540         3.990         0.010         0.419         4.350         32.891           0.381         0.346         0.980         0.080         0.200         0.270         2.041           0.510         0.500         0.920         0.170         0.198         0.203         1.533           12.985         13.690         21.680         4.150         3.665         -0.431         -3.262           -1.720         -1.725         -0.693         -2.659         0.460         0.100         0.756	Mean         Median         Max         Min         Dev.         Skewness         of Skeweness         Kurtosis           1.211         1.264         3.296         -0.799         0.666         -0.447         -3.362         3.496           4.138         4.090         6.130         1.690         0.802         -0.066         -0.501         2.665           0.579         0.540         3.990         0.010         0.419         4.350         32.891         30.764           0.381         0.346         0.980         0.080         0.200         0.270         2.041         2.104           0.510         0.500         0.920         0.170         0.198         0.203         1.533         2.040           12.985         13.690         21.680         4.150         3.665         -0.431         -3.262         2.401           -1.720         -1.725         -0.693         -2.659         0.460         0.100         0.756         2.274	Mean         Median         Max         Min         Dev.         Skewness         of Skeweness         Kurtosis         of Kurtosis           1.211         1.264         3.296         -0.799         0.666         -0.447         -3.362         3.496         13.218           4.138         4.090         6.130         1.690         0.802         -0.066         -0.501         2.665         10.077           0.579         0.540         3.990         0.010         0.419         4.350         32.891         30.764         116.300           0.381         0.346         0.980         0.080         0.200         0.270         2.041         2.104         7.956           0.510         0.500         0.920         0.170         0.198         0.203         1.533         2.040         29.161           12.985         13.690         21.680         4.150         3.665         -0.431         -3.262         2.401         9.077           -1.720         -1.725         -0.693         -2.659         0.460         0.100         0.756         2.274         8.597

Source: Survey Data (2020)

#### **4.4 Regression Model Test Results**

The study carried out regression model tests to warrant that the major conventions of the regression model were met to curb against giving misleading results. The study carried out normality, multicollinearity, autocorrelation and unit root tests to examine regression assumptions based on data collected for the study.

### **4.4.1 Normality Test Results**

Gujarati & Porter (2009), allude that normality test have to be evinced before an examination would go on with further examinations of regression like heteroscedasticity, autocorrelation and multicollinearity. Normality Test asserts if the error terms are normally dispersed or not in the model. In this research the critical ratios of kurtosis and skewness underlined in Table 4.1 on descriptive statistics were utilized in testing normality presumption of the error terms in the regression model. The research determined that on all the variables kurtosis and skewness values were lower than the critical values of kurtosis and skewness correspondingly, hence suggesting that the statistics for the research were dispersed normally (Hair, Black, Babin, & Anderson, 2009). In Table 4.3 below and output in appendix ix, the study utilized test of normality using model residuals which indicated existence of normality on the error terms since in all the four model's Jarque-Bera Statistics were greater than 10% significant level. On the other hand, central limit theorem also stipulates that when a research size of the sample is greater than 100 observations, the statistics inclines to be dispersed normally (Gujarati & Porter, 2009). The research attracted firm year observations totaling to 343 which shows that the central limit theorem on dispersion of normality was satisfied therefore this model was distributed normally.

**Table 4.2: Test Statistics for Model Residual Normality** 

Model	Jarque-F	Conclusion	
Wiodei	Dividend Policy	Probability	Conclusion
Model 1	0.189	0.910	Error terms are normal
Model 2	0.227	0.893	Error terms are normal
Model 3	0.211	0.900	Error terms are normal
Model 4	0.350	0.840	Error terms are normal
Model 5	0.232	0.890	Error terms are normal
Model 6	0.315	0.854	Error terms are normal
Model 7	0.231	0.891	Error terms are normal
Model 8	0.321	0.852	Error terms are normal

Source: Survey Data (2020)

# **4.4.2** Multicollinearity Test Results

Multicollinearity is a situation where independent variables are highly correlated with each other to the level that the actual link amid the dependent and independent variables is affected thus contributing to detrimental singularity effect which thwarts the approximation of any coefficients, escalates standard error, coefficients being wrongly approximated and incorrect signs on the outputs of regression analysis. This investigation applied two distinct perspectives to test multicollinearity problem that were correlation matrix and variance inflation factors (VIF). Correlation matrix provides a relationship between explanatory variables of the study. According to Khalid (2006), there has been no consensus among scholars concerning the cut off correlation percentage/ratio, intellectuals propose that correlation higher than 0.7 may cause multicollinearity problem. In this study Table 4.2 indicates correlation between variables which postulate that there was non-existence of multicollinearity problem

amongst all the variables since the highest correlation was 0.399, hence the outputs of the regression model were not affected by the multicollinearity problem. Table 4.4 presents outputs of multicollinearity test using variance inflation factor (VIF). Naser, Al-Husaini, & Nuseibeh (2006) and Khalid (2006), shows that there is no concrete and fast tenet about the value of VIF at which multicollinearity contributes to a difficulty, although some intellectuals suggest that VIF of more than 10 confirms existence of multicollinearity problem. In line with the outcomes of multicollinearity obtainable, there was no multicollinearity problem in the model as all the VIF's were below 10. The highest VIF was 1.525 and the mean VIF 1.26 that was closer to 1 therefore this endorses that multicollinearity is not a problem for the regression model.

**Table 4.3: Multicollinearity Coefficients** 

<b>Coefficient Variance</b>	<b>Uncentered VIF</b>	<b>Centered VIF</b>
0.007466	67.77079	1.525475
0.053874	9.530299	1.511800
0.043079	2.620292	1.040484
0.072599	11.99089	1.263559
0.000166	14.82295	1.107015
0.012186	20.44051	1.153891
0.012914	4.839201	1.059224
	0.007466 0.053874 0.043079 0.072599 0.000166 0.012186	0.007466       67.77079         0.053874       9.530299         0.043079       2.620292         0.072599       11.99089         0.000166       14.82295         0.012186       20.44051

**Source:** Survey Data (2020)

#### 4.4.3 Autocorrelation

Autocorrelation is defined as the correlation or relationship amid the size of annotations controlled in the error term and time in the two intervals (Gujarati & Porter, 2009). This research performed the test of the associations on the error terms in the study model

and established whether the terms were constant. Durbin-Watson (DW) test was utilized to measurer autocorrelation. According to Aga & Safakli (2007) and Vogt & Johnson (2011), Durbin Watson of amid 1.5 and 2.5 shows lack of autocorrelation difficulty. In the investigation Durbin Watson of amid 1.598 and 1.651 underscored in Table 4.5 below was displayed therefore no problem of autocorrelation in the research models.

**Table 4.4: Autocorrelation Test** 

Model	<b>Durbin-Watson Statistics</b>	Conclusion
	<b>(D)</b>	
Model 1	1.598	No autocorrelation
Model 2	1.608	No autocorrelation
Model 3	1.612	No autocorrelation
Model 4	1.602	No autocorrelation
Model 5	1.607	No autocorrelation
Model 6	1.624	No autocorrelation
Model 7	1.612	No autocorrelation
Model 8	1.651	No autocorrelation

Source: Survey Data (2020)

### **4.4.4 Panel Unit Root Test Results**

The unit root test was carried out on independent, dependent, control and moderator variables of the investigation utilizing Phillips-Perron unit root test. The outcomes and output presented in appendix v, Table 4.6 and Table 4.7 underneath respectively where the p-values for the Phillips-Perron Fisher Chi-square statistics were less than 0.05% among all the variables that were corporate size, foreign diversity, dividend policy,

gender, professional expertise, age and leverage except for the moderating variable that was CEO Power. The test was performed to evade a condition where the regression outcomes could be spurious that would jeopardize testing of the hypothesis (Granger & Newbold, 1974). The first difference [D(var)] was executed on the CEO Power so as to correct the regression models non-stationarity. The results are highlighted in Table 4.7 below.

**Table 4.5: Panel Unit Root Test Statistics** 

Variables	PP - Fisher <sup>χ2</sup>	Prob.	Conclusion
Dividend Policy	207.879	0.0000	Reject H <sub>0</sub>
Corporate Size	163.965	0.0000	Reject H <sub>0</sub>
Leverage	213.962	0.0000	Reject H <sub>0</sub>
Foreign	144.131	0.0000	Reject H <sub>0</sub>
Professional Expertise	150.405	0.0000	Reject H <sub>0</sub>
Age	115.567	0.0037	Reject H <sub>0</sub>
Gender	87.6005	0.0044	Reject H <sub>0</sub>
CEO Power	3.90589	0.6894	Do not Reject H <sub>0</sub>

Source: Survey Data (2020)

**Table 4.6: Panel Unit Root Test Statistics** 

Variables	PP - Fisher <sup>χ2</sup>	Prob.	Conclusion
Dividend Policy	207.879	0.0000	Reject H <sub>0</sub>
Corporate Size	163.965	0.0000	Reject H <sub>0</sub>
Leverage	213.962	0.0000	Reject H <sub>0</sub>
Foreign	144.131	0.0000	Reject H <sub>0</sub>
Professional Expertise	150.405	0.0000	Reject H <sub>0</sub>
Age	115.567	0.0037	Reject H <sub>0</sub>
Gender	87.6005	0.0044	Reject H <sub>0</sub>
D(CEO Power)	10.1898	0.0373	Reject H <sub>0</sub>

Source: Survey Data (2020)

#### **4.5 Correlation Results**

Analysis of Pearson correlation was performed to establish the correlation amongst research variables. The correlation output and results highlighted in appendix iv and table 4.2 below respectively are deliberated in the subsequent ensuing segments;

# **4.5.1** Corporate Size

Corporate size (r = -0.101, p = 0.063) was statistically significant at 10% level and negatively correlated to dividend policy. This means that as corporate size decreases dividend policy reduces at a significant rate. This implies that the variables have a common variability although in a negative direction. The Pearson correlation between corporate size and leverage (r = 0.108, p = 0.046), and professional expertise (r = 0.399, p = 0.000) were positive and significant at 5% and 1% respectively, hence as corporate size increases leverage and professional expertise improves at a significant rate. The Pearson correlation between corporate size and foreign diversity (r = -0.249, r = 0.000) was negative and significant at 1% level. This implies that as corporate size decreases foreign diversity reduces at a significant rate. The Pearson correlation between corporate size and age (r = -0.061, p = 0.264) was negative and insignificant, hence corporate size decreases age diversity at an insignificant rate. While Pearson correlation between corporate size and gender (r = 0.02, p = 0.709) was positive and insignificant. This means that corporate size and gender have common invariability. On the other hand, Pearson correlation between corporate size and CEO power (r = -0.04, p = 0.459) was negative and insignificant. This implies that when corporate size decreases CEO power reduces at an insignificant rate. This means that CEO power has no influence on corporate size.

#### 4.5.2 Leverage

The Pearson correlation between leverage and policy on dividend was positive (r = 0.003, p = 0.957) and statistically insignificant postulating that leverage has little influence on dividend policy. The Pearson correlation among leverage and business size (r = 0.108, p = 0.046) and foreign diversity (r = 0.160, p = 0.003) were positive and statistically significant implying that the variables have 0.11 and 0.16 common variability correspondingly. The Pearson correlation between leverage and age (r = 0.116, p = 0.032) was negative and significant indicating that the decrease in leverage improves age diversity. The Pearson correlation between leverage and professional expertise (r = 0.035, p = 0.514) and CEO power (r = 0.021, p = 0.699) were positive and insignificant, implying that the variables have no common variability. On the other hand, Pearson correlated and significant postulating common variability between the variables.

#### 4.5.3 Foreign Diversity

The Pearson correlation between foreign diversity and policy on dividend was positive (r=0.169, p=0.002) and statistically significant indicating that the variable has 0.17 common variability. The Pearson correlation amongst foreign diversity and business size (r=-0.249, p=0.000) and professional expertise (r=-0.170, p=0.002) was negative and significant implying there was adverse shared variability among the variables. The Pearson correlation between foreign diversity and leverage (r=0.160, p=0.003), and gender (r=0.190, p=0.000) were positively correlated and significant. This implies that the leverage, and gender have 0.16, and 0.19 common variability with foreign diversity. The Pearson correlation amongst foreign diversity and age (r=0.082, p=0.131) was positive and immaterial. This denotes that there was a positive common

invariability between the variables. On the other hand, Pearson correlation between foreign diversity and CEO power was positive (r = 0.058, p = 0.288) and immaterial. This suggests there was no shared variability amongst the variables.

#### 4.5.4 Professional Expertise Diversity

The Pearson correlation amongst professional expertise and dividend policy was negative (r = -0.097, p = 0.073) and significant. This infers that professional expertise was an essential element in inducing dividend policy. The Pearson correlation amid professional expertise and business magnitude was positive (r = 0.399, p = 0.000) significant. These indicate that the variables have 0.4 common variability. The Pearson correlation between professional expertise and foreign diversity (r = -0.170, p = 0.002) and age (r = -0.125, p = 0.02) were negatively correlated and significant. This implies that the association between professional expertise and foreign diversity and age had negative common variability of -0.17 and -0.13 correspondingly. The Pearson correlation between professional expertise and leverage was positive (r = 0.035, p =0.514) but insignificant. This implies that there are high chances of improvement in the association between the variables. The Pearson correlation between professional expertise and gender (r = 0.086, p = 0.112) was positive but insignificant. These postulates that the variables have an insignificant common variability of 0.086 but have high chances of improvement. On the other hand, the Pearson correlation between professional expertise and CEO power (r = -0.161, p = 0.003) was negative but significant. These postulates that the variables have a significant common variability.

# 4.5.5 Age Diversity

The Pearson correlation amid age and policy on dividend (r = 0.004, p = 0.942) was positive and insignificant. These implies that age has little association with dividend policy in the Kenyan NSE listed enterprises. The Pearson correlation among age and

business magnitude (r = -0.061, p = 0.264) was negative and insignificant, hence a negative common variability between the variables. The Pearson correlation amid age and leverage (r = -0.116, p = 0.032), professional expertise (r = -0.125, p = 0.02) and gender (r = -0.155, p = 0.004) were negative and significant. These postulates that the association between age and leverage, professional expertise and gender had common variability of -0.12, -0.13 and -0.16 correspondingly. The Pearson correlation between age and foreign diversity (r = 0.082, p = 0.131) was positive and immaterial. This suggests that there was no common predictability between the variables. The Pearson correlation among age and CEO power was adverse (r = -0.029, p = 0.590) and immaterial, hence these implies that age has no common variability with CEO power.

#### 4.5.6 Gender Diversity

The Pearson correlation amid gender and policy on dividend was positive (r = 0.255, p = 0.000) and important. This imply that gender was a significant constituent in manipulating dividend policy in Kenyan NSE listed firms. The Pearson correlation between corporate size and gender (r = 0.020, p = 0.709) was positive and immaterial. This displays that the variables had no common variability. The Pearson correlation between gender and foreign diversity (r = 0.190, p = 0.000) was positive and significant. These show that gender and foreign diversity have common variability of 0.19. The Pearson correlation between leverage and gender (r = 0.091, p = 0.092) was positive and significant denoting a common variability amid the variables while the Pearson correlation between gender and CEO power (r = 0.002, p = 0.965) was positive and insignificant which suggests that the variables did not have common variability. On the other hand, the Pearson correlation between gender and professional expertise (r = 0.086, p = 0.112) was negative and immaterial. This insinuates lack of common variability between professional expertise and gender. The Pearson correlation amid

age and gender was adverse (r = -0.155, p = 0.000) and important. These showed that there was an adverse shared variability amongst the variables of -0.155.

#### **4.5.7 CEO Power**

The Pearson correlation between CEO power and policy on dividend was positive (r = 0.099, p = 0.068) and important. These imply that CEO power and dividend policy had a common variability of 0.099. The Pearson correlation amid CEO power and company magnitude (r = -0.040, p = 0.459), leverage (r = 0.021, p = 0.699), foreign diversity (r = 0.058, p = 0.288), gender (r = 0.002, p = 0.965) were positive and insignificant. These imply that the variables were not important factors to influence association with CEO power. The Pearson correlation between CEO power and professional expertise (r = -0.044, p = 0.418) and age (r = -0.029, p = 0.590) were negative and immaterial. These indicates that there lack of shared adverse variability amid CEO power and professional expertise and age of -0.044 and -0.029 correspondingly.

Table 4.2 indicates the outputs of the Pearson correlation analysis amid the variables and their significance level.

**Table 4.7: Pearson Correlation Matrix** 

Variables	1	2	3	4	5	6	7	8
1. Dividend Policy	1.00							
2. Corporate Size	-0.101*	1.00						
3. Leverage	0.003	0.108**	1.00					
4. Foreign diversity	0.169***	-0.249***	0.160***	1.00				
5. Professional Expertise	-0.097*	0.399***	0.035	-0.170***	1.00			
6. Age	0.003	-0.061	-0.116**	0.082	-0.125**	1.00		
7. Gender	0.255***	0.020	0.091*	0.190***	-0.086	-0.155***	1.00	
8. CEO Power	0.099*	-0.040	0.021	0.058	-0.161***	-0.029	0.002	1.00

<sup>\*.</sup> Correlation is significant at the 0.1 level (2-tailed).

Source: Survey Data (2020)

<sup>\*\*.</sup> Correlation is significant at the 0.05 level (2-tailed).

<sup>\*\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

## **4.6 Model Specification Test Results**

The study utilized hausman and poolability tests to appraise the most appropriate model whether the model would be random or fixed effect as highlighted below.

# 4.6.1 Poolability Test Results

These is defined as the procedure of establishing whether the panel data are poolable so that the gradients of the regressors are the similar across distinct enterprises or time periods (Park, 2011). The likelihood Ratio Test was applied to test poolability of the data. The Likelihood Ratio Test was used to evaluate if the regression model applicable could be a pooled OLS or a fixed effect model in the first instance. When the outputs of the Likelihood Ratio Test are significant then it implies that the model is not poolable therefore another test have to be used to determine if the model is a random effect or a fixed effect model. According to this research the Likelihood Ratios were significant therefore hausman test had to be carried out to determine appropriateness of the model. The output and results of poolability test are highlighted in appendix vi and Table 4.8 below respectively.

**Table 4.8: Redundant Fixed Effect Test- Likelihood Ratio** 

Model	Cross-Section Chi-square	Decision
Model 1	417.834***	Proceed to Hausman Test
Model 2	393.696***	Proceed to Hausman Test
Model 3	392.192***	Proceed to Hausman Test
Model 4	393.282***	Proceed to Hausman Test
Model 5	393.783***	Proceed to Hausman Test
Model 6	394.477***	Proceed to Hausman Test
Model 7	393.654***	Proceed to Hausman Test
Model 8	375.379***	Proceed to Hausman Test

**Notes:** \*\*\* Significance at 1%

Source: Survey Data (2020)

#### 4.6.2 Hausman Test Results

Hausman test was used to match the coefficient estimates of the random effects model and fixed effect model (Hill, Graffiths, & Lim, 2011). Hausman test was used to determine appropriateness of the model whether the model mostly applicable is either a fixed effect model or a random effect model. The study results indicated that the most suitable model is the fixed effect model since the significance levels of all the four models were below the 1% significance level as shown in the table 4.9 below and output in appendix vii.

Table 4.9: Hausman Test

Model	χ2 Statistic	χ2 d.f.	Prob.	Appropriate Model
Model 1	16.936	2	0.0002	Fixed effect
Model 2	19.973	6	0.0028	Fixed effect
Model 3	20.038	7	0.0055	Fixed effect
Model 4	22.354	7	0.0022	Fixed effect
Model 5	20.078	7	0.0054	Fixed effect
Model 6	25.393	7	0.0006	Fixed effect
Model 7	22.989	7	0.0017	Fixed effect
Model 8	40.162	11	0.0000	Fixed effect

Source: Survey Data (2020)

## **4.7 Regression Results**

Table 4.10 displays outcomes of the four regression models for the study which indicates R-Squared of 0.707, 0.711, 0.713, 0.711, 0.713, 0.711, 0.715, and 0.72 for model 1, 2, 3, 4, 5, 6, 7, and 8 respectively. This implies that the models are capable of explaining 0.707, 0.711, 0.713, 0.711, 0.713, 0.711, 0.715 and 0.72 of the variations in payout policy of dividend in firms registered on the NSE. The adjusted R-Squared of 0.657, 0.656, 0.658, 0.655, 0.658, 0.656, 0.660, and 0.662 for models 1, 2, 3, 4, 5, 6, 7, and 8 respectively indicates that 0.657, 0.656, 0.658, 0.655, 0.658, 0.656, 0.660, and

0.662 of variation in dependent variable in the models used are elucidated by the disparities in the independent variables. The F-Statistics of 14.111, 13.099, 12.967, 12.829, 12.938, 12.836, 13.096, and 12.346 were all significant at (0.0000) which shows all variables as a cluster in the regression models 1, 2, 3, 4, 5, 6, 7 and 8 respectively explain variation in the payout policy on dividend among organizations registered in the Nairobi Security Exchange.

#### 4.7.1 Regression Equations

The appendix iii and Table 4.10 highlights the regression output and results respectively of the study from which the regression equations were derived. The values reflect the units in which the variables for the study were measured. Model one (Model 1) considered the control variables only. Therefore, in model one a constant (-1.148), is the intercept which denote level of dividend payout policy that do not rely on any level of independent and/or control variables of the investigation. The predictable coefficient for corporate size (0.518) implies that 51.8% of the variation in dividend payout policy amongst corporations enlisted on the Nairobi Security Exchange is attributed to corporate size. The estimated coefficient for leverage (0.369) implies that 36.9% of variations in dividend payment policy in firms registered on the NSE is attributed to leverage.

Model two (model 2) took in to account the control and independent variables (IV's) of the study. In model two (Model 2) a constant (-1.391), is the intercept which represent level of dividend payout policy that does not depend on any level of independent variables of the study. The estimated coefficient for corporate size, leverage, foreign diversity, professional expertise, age and gender of (0.487), (0.354), (0.396), (0.226), (0.005) and (0.031) respectively, implies that 48.7%, 35.4%, 39.6%, 22.6%, 0.5% and 3.1% of the variations in the policy on dividend payment in the NSE listed firms is

attributed to corporate size, leverage, foreign diversity, professional expertise, age and gender respectively. This shows that as corporate size, leverage, foreign diversity, professional expertise, age and gender increases by one-unit dividend payout policy increases by 48.7%, 35.4%, 39.6%, 22.6% and 0.5% respectively so long as the other variable (gender) is held constant. The estimated coefficient for gender of (-0.031) implies that -3.1% of the variations on policy on dividend payout among the NSE listed firms is attributed to diversity of gender. This displays that as gender increases by a unit; dividend payout policy decreases by 3.1% so long as other control/independent variables (corporate size, leverage, foreign diversity, professional expertise and age) are held constant.

Model three (Model 3) took into consideration control, independent and moderating variables. In model three (Model 3) a constant (-1.113), is the intercept that denotes degree of dividend payout policy which do not rely on any degree of independent/control variables of the research. The estimated coefficient for corporate size, leverage, foreign diversity, professional expertise, and age of (0.471), (0.360), (0.351), (0.262) and (0.006) respectively, which implies that 47.1%, 36%, 35.1%, 26.2% and 0.6% respectively of the variations in policy on dividend payout in NSE listed firms is attributed to corporate size, leverage, foreign diversity, professional expertise, and age respectively. This shows that as corporate size, leverage, foreign diversity, professional expertise, and age increases by one-unit dividend payout policy increases by 47.1%, 36%, 35.1%, 26.2% and 0.6% respectively so long as other variables (gender and CEO Power) are held constant.

The estimated coefficient for gender and CEO Power of (-0.031) and (-118.819) respectively, implies that -3.1% and -11881.9% respectively of the variations in dividend payout policy among NSE listed firms is attributed to gender and CEO Power

respectively. This shows that as gender and CEO Power increases by one-unit dividend payout policy decreases by 3.1% and 11881.9% respectively so long as other variables (corporate size, leverage, foreign diversity, professional expertise and age are held constant.

Model four (Model 4) took into consideration the control, independent and the interaction between foreign diversity and CEO power (Foreign diversity\*CEO power). In model four (Model 4) a constant (-1.447), is the intercept which denotes degree of dividend payout policy which does not rely on any degree of independent/control and interaction between Foreign diversity and CEO power variable of the study. The estimated coefficient for corporate size, leverage, foreign diversity, professional expertise, age, and foreign diversity\*CEO power of (0.498), (0.356), (0.314), (0.223), (0.004) and (64.905) respectively, implies that 49.8%, 35.6%, 31.4%, 22.3%, 0.4% and 6409.5% respectively of the dividend payout policy variations in NSE listed is attributed to corporate size, leverage, foreign diversity, professional expertise, age, and foreign diversity\*CEO power respectively. This shows that as corporate size, leverage, foreign diversity, professional expertise, age, and foreign diversity\*CEO power increases by one-unit dividend payout policy increases by 49.8%, 35.6%, 31.4%, 22.3%, 0.4% and 6409.5% respectively so long as other variable (log gender) are held constant.

The estimated coefficient for log gender (-0.033), implies that -3.3% of the variations in dividend payout policy in NSE listed firms is attributed to gender. This shows that as gender increases by one-unit dividend payout policy decreases by 3.3% so long as other variables (corporate size, leverage, foreign diversity, professional expertise, age, and foreign diversity\*CEO power) are held constant.

Model five (Model 5) took into consideration the control, independent and the interaction between professional expertise and CEO power (professional expertise\*CEO power). In model five (Model 5) a constant (-1.226), is the intercept which denotes degree of dividend payout policy which does not rely on any degree of independent/control and interaction between professional expertise and CEO power variable of the study. The estimated coefficient for corporate size, leverage, foreign diversity, professional expertise, and age of (0.442), (0.368), (0.343), (0.568), and (0.006) respectively, implies that 44.2%, 36.8%, 34.3%, 56.8% and 0.6% respectively of the variations in dividend payout policy in NSE listed firms is attributed to corporate size, leverage, foreign diversity, professional expertise and age respectively. This shows that as corporate size, leverage, foreign diversity, professional expertise and age increases by one-unit dividend payout policy increases by 44.2%, 36.8%, 34.3%, 56.8% and 0.6% respectively so long as other variable (log gender and professional expertise\*CEO power) are held constant.

The estimated coefficient for log gender (-0.033), implies that -3.3% of the variations in dividend payout policy in the NSE listed firms is attributed to diversity of gender. This shows that as gender increases by one-unit dividend payout policy decreases by 3.3% so long as other variables (corporate size, leverage, foreign diversity, professional expertise, age, and foreign diversity\*CEO power) are held constant.

Model six (Model 6) took into consideration the control, independent and the interaction between age diversity and CEO power (age diversity\*CEO power). In model six (Model 6) a constant (-1.362), is the intercept which denotes the degree of dividend payout policy which does not rely on any level of independent/control and interaction between age diversity and CEO power variable of the study. The estimated coefficient for corporate size, leverage, foreign diversity, professional expertise, and

age of (0.480), (0.359), (0.392), (0.226), and (0.01) respectively, implies that 48%, 35.9%, 39.2%, 22.6% and 1% respectively of the variations in dividend payout policy in NSE listed firms is attributed to corporate size, leverage, foreign diversity, professional expertise and age respectively. This shows that as corporate size, leverage, foreign diversity, professional expertise and age increases by one-unit dividend payout policy increases by 48%, 35.9%, 39.2%, 22.6% and 1% respectively so long as other variable (log gender and age diversity\*CEO power) are held constant.

The estimated coefficient for log gender (-0.027) and the interaction between age diversity and CEO power (age diversity\*CEO power) (-2.53), implies that -2.7% and -25.3% respectively of the variations policy on in dividend payout in NSE registered firms is attributed to gender and the interaction between age diversity and CEO power of firms listed in the NSE. This shows that as gender and the interaction between age diversity and CEO power increases by one-unit dividend payout policy decreases by 2.7% and 25.3% respectively so long as other variables (corporate size, leverage, foreign diversity, professional expertise, and age diversity) are held constant.

Model seven (Model 7) took into consideration the control, independent and the interaction between gender diversity and CEO power (log gender\*CEO power). In model seven (Model 7) a constant (-1.333), is the intercept which denotes degree of dividend payout policy which does not rely on any the degree of independent/control and interaction amid diversity of gender and CEO power variable of the study. The estimated coefficient for corporate size, leverage, foreign diversity, professional expertise, age and interaction between gender diversity and CEO power (gender diversity\*CEO power) of (0.147), (0.368), (0.337), (0.239), (0.04) and (72.678) respectively, implies that 14.7%, 36.8%, 33.7%, 23.9%, 4% and 7267.8% respectively of the variations in dividend payout policy in NSE listed firms is attributed to corporate

size, leverage, foreign diversity, professional expertise and age respectively. This shows that as corporate size, leverage, foreign diversity, professional expertise and age increases by one-unit dividend payout policy increases by 14.7%, 36.8%, 33.7%, 23.9%, 4%, and 7267.8 respectively so long as other variable (log gender) is held constant.

The estimated coefficient for log gender (-0.19), implies that -19% of the variations in policy on dividend payout amid firms registered in the NSE is attributed to diversity of gender of firms listed in the NSE. This shows that as gender increases by one-unit dividend payout policy decreases by 19% respectively so long as other variables (corporate size, leverage, foreign diversity, professional expertise, age diversity and interaction between gender and CEO power (gender\*CEO power)) are held constant.

Model eight (Model 8) took into consideration control, independent, moderating and all the interactive variables. In model eight (Model 8) a constant (-1.462), is the intercept that denotes degree of dividend payout policy which does not depend on any degree of independent/control/moderating and interactive variables of the study. The estimated coefficient for corporate size, leverage, professional expertise, foreign diversity\*CEO power, age\*CEO power and gender\*CEO power of (0.490), (0.382), (0.544), (292.027), (11.231) and (128.802) respectively, implies that 49%, 38.2%, 54.4%, 29202.7%, 1123.1% and 12880.2% respectively of the variations in policy on dividend payout in the NSE registered firms is attributed to corporate size, leverage, professional expertise, foreign diversity\*CEO power, age\*CEO power and gender\*CEO power respectively. This shows that as corporate size, leverage, professional expertise, foreign diversity\*CEO power, age\*CEO power and gender\*CEO power increases by one-unit dividend payout policy increases by 49%, 38.2%, 29202.7%, 1123.1% and 12880.2% respectively so long as other variables

(foreign diversity, age, gender and professional expertise\*CEO power) are held constant.

The estimated coefficient for foreign diversity, age, gender, professional expertise\*CEO power and CEO power of (-0.117), (-0.022), (-0.339), (-26.104) and (-135.306) respectively, implies that -11.7%, -2.2%, -33.9%, -2610.4% and -13530.6% respectively of the deviations in policy on dividend payout in the NSE listed companies is attributed to foreign diversity, age, gender and professional expertise\*CEO power respectively. This shows that as foreign diversity, age, gender, CEO power and professional expertise\*CEO power increases by one-unit dividend payout policy decreases by 11.7%, 2.2%, 33.9%, 2610.4% and 13530.6% respectively so long as other variables (corporate size, leverage, professional expertise, foreign diversity\*CEO power, age\*CEO power and gender\*CEO power) are held constant.

#### 4.8 Hypothesis Testing

The research tested numerous hypothesis whereby the independent variables were regressed alongside the dependent variable (policy on dividend). The fixed effect regression analysis was carried out for all the study models and out comes presented in Table 4.10. The research used the F– Statistic to test the regression models significance (Hair, Black, Babin, & Anderson, 2009). In this study the outputs stipulate that all the F – Statistics were significant suggesting that every variables as a cluster in every regression models significantly accounted for the variations in policy on dividend (p-value < 0.1). The Durbin-Watson D statistics too showed that the error terms in every model was independent as the indicators ranged from 1.5 to 2.5 (Aga & Safakli, 2007) & (Vogt & Johnson, 2011).

The research applied the t – statistics to investigate the hypothesis in establishing the significance of the limits applying the following test mode;  $H_0$ :  $\beta_i = 0$  and  $H_a$ :  $\beta_i \neq 0$ ,  $H_0$ would be rejected if  $\beta_{j\neq 0}$ ; p – value  $\leq 0.1$ . The study first regressed control variables i.e. enterprise magnitude and leverage, besides the dependent variable i.e. dividend policy, before the hypothesis testing was performed. This was performed on model 1 (one) and the outputs showed that enterprise magnitude and leverage were all significant ( $\beta = 0.518$ , p - value = 0.0002 and  $\beta = 0.369$ , p - value = 0.0156) correspondingly. The outputs indicate that big corporations develop improved policy decisions on dividends therefore there are high probabilities of bigger company's dividend payment to the investors than smaller enterprises. The research outputs were compatible to a research performed by Koch & McGrath (1996) that established that large corporations are expected to have pragmatic influence on the enterprise's board members diversity and decisions on dividend policy. Conversely, Leverage postulate that enterprises with high threat are likely not to disburse any dividends or pay low dividends as financial debt of the enterprise rises the overheads on tasks. The outputs were compatible with a research by Javed (2012), who determined that enterprises experiencing distress as a result of high debts are not capable to enhance profitability that results to reduction in dividend per share. This study used model two (Model 2) which is the direct effect model to test the hypothesis one (1) to four (4) and model eight (model 8) i.e. the composite model to test hypothesis five (5) to eight (8) following Baron & Kenny (1986), concept.

# 4.8.1 Foreign Diversity and Dividend Policy

The outputs of the Ho<sub>1</sub>: There is insignificant effect amid foreign diversity and policy on dividend in Kenya are highlighted in Table 4.10. The outputs stipulate that null hypothesis (Ho<sub>1</sub>) is accepted, which implies the hypothesis is supported by the study

outputs. The out-turns of foreign diversity were not significant in all the models of the study ( $\beta$ = 0.396, 0.314, 0.343, 0.392, 0.337, 0.351, -0.117 and p - values  $\leq$  0.126, 0.324, 0.189, 0.131, 0.193, 0.178, 0.745) for models 2, 3, 4, 5, 6, 7 and 8 respectively compared to dividend policy. The beta's were positive in models 2 (two), three (3), four (4), five (5), six (6), seven (7) and negative in model eight (8). This implies that in model two (2), three (3), four (4), five (5), six (6) and seven (7) foreign diversity affected dividend policy positively when the independent variables and moderating variable was regressed against the dependent variable (dividend policy) hence foreign diversity improved dividend payout policy of firms though foreign diversity was not a significant factor in establishing dividend payout policy. In model eight (8) the beta was negative implying that foreign diversity decreased dividend payout by firms. The results from all the models (2, 3, 4, 5, 6, 7 and 8) were inconsistent with the findings in an investigation on the effects of diversity of the board in terms of diversity of gender and foreign diversity on payout policy on dividend which postulated a positive effect on dividend payment policy (Al-Dhamari, Ismail, & Al-Gamrh, 2016) and (Miller & Del Carmen Triana, 2009). This hypothesis was tested using model two (model 2) which indicated an insignificant effect on dividend policy. On the other hand, Wang & Clift (2009), in their study on board diversity observed that there was no significant association amid foreign diversity and performance of the enterprise hence compatible with the outcomes of the research.

#### 4.8.2 Professional Expertise and Dividend Policy

The regression outcomes on the influence among professional expertise and dividend policy are reported on Table 4.10. The outcomes suggest that there was no any significant association in all the seven models (2, 3, 4, 5, 6, 7 and 8). The beta's were positive ( $\beta = 0.226$ , p = 0.490;  $\beta = 0.223$ ; p = 0.496;  $\beta = 0.568$ , p = 0.166;  $\beta = 0.226$ , p = 0.490;  $\beta = 0.226$ ,  $\beta = 0.490$ ;  $\delta = 0.490$ ;  $\delta$ 

= 0.491;  $\beta$  = 0.239, p = 0.463;  $\beta$  = 0.261, p = 0.425 and  $\beta$  = 0.544, p = 0.314) for models (2, 3, 4, 5, 6, 7 and 8) respectively. Therefore, in all the affected models the null hypothesis was accepted that states Ho<sub>2</sub>. There is no significant association amongst Professional Expertise and Policy on Dividend. The t values for the seven models (2, 3, 4, 5, 6, 7 and 8) were positive (t = 0.691, t = 0.681, t = 1.389, t = 0.690, t = 0.735, t = 0.7350.798 and t = 1.009) respectively which implies that there was minimal relationship amid professional expertise and policy on dividend. The results supported the hypothesis of the study which was inconsistent with a prior study by Hsu (2010), in the association amid characteristics of the board and financial performance whereby the outcomes posted a positive outcome on board quality measured by board expertise and educational background. Tornyera & Wereko (2012), also in their study established an optimistic link amid board skills and management skills and corporate performance. Thomas & Gregory (2014), in their prior study postulate that a professional board comprising of retired administrators with business definite expertise is susceptible to groupthink character, as well as to the availability of such individual board directorship positions. The study further indicates that although industry precise expertise's is a preferred feature of an independent member of the board, there are further characteristics that companies look for, such as global, legal/government, marketing, risk and technology expertise. In a study by Craig & James (2009), they found that firms having intellectual directors in their board have superior board demographic diversity than companies lacking academic director hence enterprises with academic directors have the similar mean prominence on knowledge-based returns as other corporations. Powel (1991), postulate that there could be an adverse association amongst expertise degrees and performance of the enterprise owing to the professional and occupational attachments of extremely competent executives that enhance agency behavior.

# 4.8.3 Gender Diversity and Dividend Policy

The output of the Ho<sub>3</sub>: There is no significant effect amongst gender diversity and policy on dividend in Kenya are stipulated in Table 4.10. The outcomes show that null hypothesis (Ho<sub>3</sub>) is accepted in models 2, 3, 4, 5, 6 and 7 but rejected in model 8. The results in model 2, 3, 4, 5, 6 and 7 supported the hypothesis of the study while in model 8 was not sustained by the outputs of the research. The outputs of the association amid diversity of gender and policy on dividend was not significant in models 2, 3, 4, 5, 6 and 7 ( $\beta = -0.031$ ,  $\beta = -0.031$ ,  $\beta = -0.033$ ,  $\beta = -0.026$ ,  $\beta = -0.027$ ,  $\beta = -0.190$  and  $\beta = -0.031$ 0.724, p = 0.727, p = 0.707, p = 0.766, p = 0.767, p = 0.103) correspondingly which implied that gender diversity had minimal association with dividend policy in Kenya while the results were significant in Model 8 (eight) ( $\beta$ = -0.339, p = 0.065) although the beta was negative inferred that as inequity of gender declined the payout of dividend improved in Kenyan companies. These outputs are consistent to the previous research by (Wang & Clift, 2009), (Soku, Kiyoung, & Young, 2016), and (Chen, Leung, & Goergen, 2017), who determined that corporation with diversified boards have important effect on policy on payment of dividend. The investigation furthermore demonstrate that diversified board's assist in mitigating greater agency problems of free cash flow. Nevertheless, Nirosha & Stuart (2013), in their investigation on female's board members, enterprise monetary performance and agency overheads were determined to have a significant negative association among the percentage of females on the governance organ and corporate worth beside an upsurge in agency overheads. This study used model two (2) to test the hypothesis. The results therefore supported the study hypothesis.

#### 4.8.4 Age Diversity and Dividend Policy

Table 4.10 presents the results of regressing age diversity to dividend policy which stipulate that there is no significant link. It suggests that the null hypothesis (Ho<sub>4</sub>) which states that there is no significant association amid diversity of age and dividend policy in Kenyan corporations is accepted in model two (2), three (3), four (4), five (5), six (6), seven (7) and model eight (8). This is because the results were not significant ( $\beta$  = 0.005,  $\beta = 0.004$ ,  $\beta = 0.006$ ,  $\beta = 0.010$ ,  $\beta = 0.042$ ,  $\beta = 0.006$ ,  $\beta = -0.22$ ) with  $\beta = 0.634$ , p = 0.687, p = 0.571, p = 0.465, p = 0.662, p = 0.559, p = 0.228) respectively, hence the alternate hypothesis (Ha<sub>4</sub>) that states that there is an important link amongst age diversity and dividend policy in Kenyan corporations is rejected. The betas in model two (2) three (3), four (4), five (5), six (6), seven (7) and model eight (8) are positive which implies that there are limited relationship amongst age diversity and policy on dividend in Kenya's corporations while on the other hand in model eight (8) the beta was negative (-.022) which implies that enterprises with less age diverse boards have low dividend payout policy that could mitigate against free cash flow. The study is inconsistent with prior studies by Huse & Rindova (2001), who argue that age diversity assists in the process of generating different perspectives, consensus and help in attracting of clients in distinct age groups hence as a result enhance variety of perspectives on the board. Serfling (2012), also posit that chief executive officer's age can have a significant influence on corporate financial policy options, corporate performance and existence of agency costs within the organization. This hypothesis was also tested using model two (2) of the study. The outputs showed that there was insignificant link amid diversity of age and dividend policy among Kenyan companies listed in the Nairobi Securities Exchange.

# 4.8.5 Chief Executive Officer Power, Foreign Diversity and Dividend Policy

The hypothesis that power of chief executive officer does not moderate the link amongst foreign diversity and dividend policy in firms listed on NSE, Kenya was rejected. Based on the regression outcome of the product of independent (foreign diversity) and moderator variable (CEO power) with dividend policy the output in model 8 (eight) CEO power positively and significantly moderated the relationship between foreign diversity and dividend policy ( $\beta$ = 292.0266, p – value = 0.0991) respectively. This confirmed the findings by (Adams, Almeida, & Ferreiva, 2005) where it was found that investment returns were variable for enterprises managed by powerful CEO's that recommended that connections linking top management features and organizational variables has important out-turns on performance of enterprises hence Chief Executive Officer power influence the association amid diversity of the board and policy on dividend of corporations.

# 4.8.6 Chief Executive Officer Power, Professional Expertise Diversity and dividend policy

The hypothesis that Chief Executive Officer Power does not moderate the link amid professional expertise and policy on dividend among Kenyan corporations was accepted. Based on the regression outputs of the products of independent (professional expertise) variables and moderator variable (CEO power) with dividend policy the outcome in model 8 (eight), CEO power negatively and insignificantly moderated the relationship between professional expertise and dividend policy ( $\beta$  = -135.31, p – value = 0.5151). The results were consistent with prior study by Kingsley & Theophilus (2012), where it was postulated that management skills when measured against return on assets the outcome was negative and insignificant. These means that CEO power

does not moderate the link amid professional expertise and policy on dividend in companies listed on Nairobi Securities Exchange, Kenya.

#### 4.8.7 Chief Executive Officer Power, Gender Diversity and Dividend Policy

Grounded on the model 8 (eight) the hypothesis that Chief Executive Officer Power does not moderate the relation amid gender diversity and policy on dividend in Kenya was not accepted. The regression outcomes even though negative and significant ( $\beta$ = -0.339, p - value = 0.065) for the independent variable in model 8 (eight). The model 8 (eight) displayed a positive and significant outcomes on the connections ( $\beta$ = 128.8, p - value = 0.074) that showed that CEO power moderate the relationship connecting gender diversity and policy on dividend in Kenya. The outcome thus, is consistent to past investigation by Fama (1980), Fama & Jensen (1983) and Johnson, Daily, & Ellstrand (1996), who acknowledged the responsibilities of top executives oversighting executives and the statutory responsibilities of director's boards in supervision of executives for the aim of shielding the interests of shareholders.

# 4.8.8 Chief Executive Officer Power, Age Diversity and Dividend Policy

The hypothesis that Chief Executive Officer Influence does not moderate the link amid diversity of age and dividend policy in organizations registered in Nairobi Security Exchange, Kenya was accepted. The results in model 8 (eight) indicated that the relationships were adverse and insignificant ( $\beta$ = -0.022, p - value = 0.23) with the interactions ( $\beta$ = 10.995, p - value = 0.13). These show that there was little moderation in the connection between diversity of age and policy on dividend in Kenya. The output confirms the research by Adams, Almeida, & Ferreiva (2005), which posit that firms run by powerful CEO's the interactions linking executive characteristics and organization variables has consequences on enterprise performance.

**Table 4.10: Regression Model Coefficients** 

bic 4.10. Regression model coef	Dependent Variable: LOGDIVPOLICY								
Predictor Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	
Constant	(1.148)**	(1.391)**	(1.447)**	(1.226)*	(1.362)**	(1.333)**	(1.113)*	(1.462)**	
	(-2.007)	(-2.174)	(-2.216)	(-1.887)	-2.119	(-2.094)	(-1.678)	(-2.039)	
Log corporate size	0.518***	0.487***	0.498***	(0.442)***	(0.480)***	0.147***	0.471	0.490***	
	-3.725	-3.309	3.333	2.937	3.243	3.194	-3.198	-3.194	
Leverage	0.369**	0.354**	0.356**	(0.368)**	(0.359)**	0.368**	0.36	0.382**	
	-2.432	-2.301	2.312	2.391	2.328	2.408	-2.346	-2.482	
Foreign diversity		0.396	0.314	0.343	0.392	0.337	0.351	-0.117	
		-1.534	0.987	1.316	1.515	1.304	-1.351	(-0.325)	
Professional expertise		0.226	0.223	0.568	0.226	0.239	0.262	0.544	
		-0.691	0.681	1.389	0.69	0.735	-0.798	-1.009	
Age		0.005	0.004	0.006	0.01	0.004	0.006	-0.022	
		-0.477	0.403	0.567	0.732	0.438	-0.585	(-1.208)	
Log gender		-0.031	-0.033	-0.026	-0.027	(-0.19)*	-0.031	(0.339)*	
		(-0.354)	-0.376	-0.298	-0.297	-1.637	(-0.350)	(-1.852)	
CEO power							-118.82	-26.104	
							(-1.548)	(-0.125)	
Foreign diversity*CEO power			64.905					292.027*	
			0.444					-1.655	
Professional expertise*CEO power				-154.079				-135.306	
•				-1.392				(-0.652)	
Age*CEO power					-2.53			11.231	
					-0.56			-1.517	
Log gender*CEO power						72.678**		128.802*	
- 6 6 · · · · · ·						2.109		-1.795	

R-squared	0.707	0.711	0.711	0.713	0.711	0.715	0.713	0.72
Adjusted R-squared	0.657	0.656	0.655	0.658	0.656	0.66	0.658	0.662
S.E. of regression	0.390	0.391	0.3912	0.390	0.391	0.388	0.390	0.387
Sum squared residual	44.455	43.943	43.913	43.649	43.895	43.273	43.58	42.493
Log likelihood	-136.277	-134.293	-134.18	-133.139	-134.106	-131.66	-132.87	-128.538
F-statistic	14.111	13.099	12.829	12.938	12.836	13.096	12.967	12.346
Prob(F-statistic)	.000	.000	.000	.000	.000	.000	.000	.000
Durbin-Watson stat	1.598	1.608	1.612	1.602	1.607	1.624	1.612	1.651

Notes: \*\*\* Significance at 1%; \*\* Significance at 5%; \* Significance at 10% Figures in parenthesis are *t* – statistics

Source: Survey Data (2020)

**Table 4.11: Summary of Significant Hypotheses** 

Hypotheses	Statement	F-statistic	Decision
Ноз	There is no significant relationship between gender diversity and dividend policy in Kenya	Significant	Rejected
Ho <sub>5</sub>	Chief Executive Officer Power does not moderate the relationship between foreign diversity and dividend policy in Kenya	Significant	Rejected
Но7	Chief Executive Officer Power does not moderate the relationship between gender diversity and dividend policy in Kenya	Significant	Rejected

Source: Survey Data (2020)

#### **CHAPTER FIVE**

# SUMMARY OF FINDINGS, DISCUSSIONS, CONCLUSION AND RECOMMENDATIONS

#### 5.1 Introduction

This section describes the study outcomes, discussions, conclusion and recommendations. It is arranged as follows; it starts with the summary of findings, discussion on the validation of the conceptual model used in the study, discussion of the board diversity as a determinant of policy on dividend in Kenya's registered enterprises on Nairobi Security Exchange, enumeration of the specific board diversity variables in relation to dividend policy among Kenyan companies, discussion of moderating effect of Chief Executive Officer Power in Kenyan enterprises registered on the Nairobi Securities Exchange, discussion on the conclusion of the investigation, recommendations of the study, contributions of the inquiry and lastly, presents further research suggestions.

# **5.2 Summary of the Findings**

The research on the effect of board diversity and chief executive officer power on policy on dividend in Kenya had eight objectives developed into hypothesis hence regression analysis performed on them to test the hypothesis. The following section presents the study findings in line with the hypothesis.

The first hypothesis was that there is no significant link amongst foreign diversity and policy on dividend in Kenya. Foreign diversity was operationalized as being fraction of non-Kenya members of the directors board divided by the aggregate number of members of the board while policy on dividend was measured by dividend yield computed as a proportion of dividend per share divided by market price per share. The study posit that Kenyan firms had foreign diversification with a mean of .38 and a range

of between minimum of 0.08 and maximum of 0.98. The investigation determined that foreign diversity had no significant association with dividend policy of enterprises in Kenya. The output was consistent with the conclusions by Wang & Clift (2009), who posit that there was an insignificant link amid foreign diversity and corporate performance.

The second hypothesis was that there is insignificant association amongst professional expertise and policy on dividend in Kenya. Professional expertise was defined as a fraction of expertise with financial background in the directors board divided by the aggregate number of board members on the firm board. Professional expertise was diversified with a mean of 0.51 with a range of between minimum of 0.17 and maximum of 0.92. The study postulate that there was insignificant relationship amid professional expertise and policy on dividend in Kenya. The research output does not support past findings by Craig & James (2009), Hsu (2010), Tornyera & Wereko (2012), and Thomas & Gregory (2014), which posted positive association between professional expertise and dividend policy.

A third hypothesis stated that there is no significant link amid gender diversity and policy on dividend in Kenya's corporations. This research resulted to an average of -1.76 with lowest score of -2.66 and highest score of -0.69 in Kenya's companies. The investigation outputs indicate that there was a significant association amid gender diversity of members of the board and policy on dividend in Kenyan corporations. The investigation output was consistent with earlier research by (Wang & Clift, 2009), Nirosha & Stuart (2013), (Soku, Kiyoung, & Young, 2016) and (Chen, Leung, & Goergen, 2017), who determined a significant link amongst gender diversity of the board and dividend payout policy of corporations therefore assisting in alleviation of the agency problem in corporations.

The fourth hypothesis was that there is no significant link amongst diversity of age and policy on dividend in Kenyan corporations. Age diversity was found to be at a very high mean of 12.99 with a minimum of 4.15 and maximum of 21.68. The study results posited an insignificant connection amongst diversity of age and policy on dividend of companies in Kenya. The beta was negative (-0.022) which indicated that enterprises with less diverse board of directors have low dividend payout policy that could mitigate against free cash flow in corporations. The study did not concur with the finding of Huse & Rindova (2001) and Serfling (2012), who found out that age diversity assists in the exercise of producing different perspectives, consensus and help in attracting of clients in different age sets therefore enhance the perspectives on the board. In Kenya the negative outputs could be attributed to the idea that corporations had not fully embraced the culture of appointing the youthful persons as directors to their board.

The fifth hypothesis was that chief executive officer power does not moderate link among foreign diversity and dividend policy in Kenya. The results indicated that CEO power positively and significantly moderated the link between foreign diversity and dividend policy in Kenya's corporations. The outcomes concurred with finding of Adams, Almeida, & Ferreiva (2005), who found out that investment yields were variable for enterprises managed by powerful CEO's suggesting that connections connecting executive features and organizational variables has principal out-come on corporations' performance hence the relation amid diversity of the board and policy on dividend of companies is affected by the CEO power.

The sixth hypothesis stated that chief executive officer power does not moderate the link amongst professional expertise and policy on dividend. The results posited an adverse and insignificant connotation amongst the variables in the research. The CEO power did not influence how the variables interact. The study was consistent with prior

study by Kingsley & Theophilus (2012), who postulated that management skills when measured against return on assets the outcome was negative and insignificant.

The seventh hypothesis was that chief executive officer power does not moderate the relationship amid gender diversity and policy on dividend in Kenya's corporations. The outputs revealed that there was an optimistic and significant impact on the connections that implied that CEO power moderated the relation amid gender diversity and policy on dividend in Kenya's corporations. The results were in line with earlier research by Fama E. (1980), Fama & Jensen (1983) and Johnson, Daily, & Ellstrand (1996), who acknowledged the role of executives over-sighting executives and the statutory responsibility of boards in overseeing executives for the aim of shielding the welfares of stockholders.

The eighth hypothesis was that chief executive officer power does not moderate the link between diversity of age and policy on dividend in Kenya's companies. The results showed that there was little moderation on the linkage between diversity of age and policy on dividend in Kenya's corporations. The results were consistent with a study by Adams, Almeida, & Ferreiva (2005), who posited that firms run by powerful CEO's the connections amid top managers characteristics and enterprise variables has outcomes on corporate performance.

#### 5.3 Validation of the Conceptual Model

The conceptual model of the investigation evaluated the link amongst diversity of the board variables and dividend policy. The board diversity variables considered in the study were foreign diversity, diversity of gender, age diversity and professional expertise diversity. The foreign diversity variable was estimated as a fraction of foreign members of the board on the board to the aggregate size of the board, professional

expertise diversity was measured as a proportion of members with knowledge in finance in the board to the aggregate board size, diversity of age was estimated as a standard deviation of ages of board members, and gender diversity was measured as a log of the fraction of female board members to the aggregate board size while the dependent variable i.e. dividend policy was estimated as the log of dividend per share divided by market price per share (fiscal year ending stock prices). The association was moderated by chief executive officer power. The chief executive officer power was estimated as an index of a dummy equal 1 (one) if chief executive officer was the only insider on the board and 0 (zero) if there were other insiders in the board. The study also included control variables which were corporate size and leverage. The control variables were measured as follows; company size was appraised as natural logarithm of aggregate assets while leverage was evaluated as a ratio of book value of debt to the aggregate assets. Data was gathered on yearly reports and financial statements of NSE listed organizations between 2009 and 2015. The study applied explanatory design to determine the causal relationship between the constructs to be explained by theories. These study employed various theories to inform the study variables. The study was anchored on power circulation theory, upper echelon theory, agency theory and signaling theory. The relation amongst the diversity of the board variables and policy on dividend where guided by agency theory, upper echelon theory and signaling theory correspondingly. On the other hand, the study on CEO power moderating the relationship among diversity of the board and dividend policy was guided by power circulation theory. The study model depicted a significant relationship among diversity of gender and policy on dividend before and after moderating effect. Foreign diversity did not have a significant link with dividend policy before moderating effect but exhibited a negative significant outcome after moderating effect. Figure 5.1 shows the final model on the effect of Board Diversity and Chief Executive Officer Power on Dividend Policy.

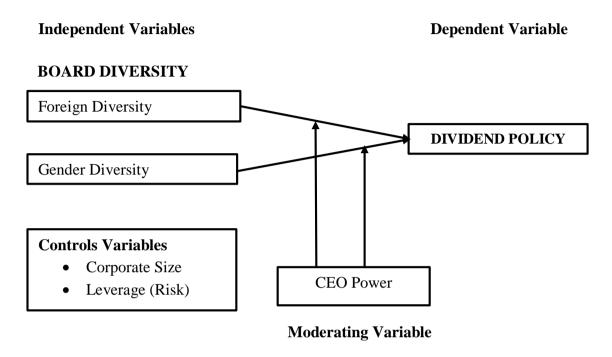


Figure 5.1: Final Model for the effect of Board Diversity and Chief Executive Officer Power on Dividend Policy

**Source:** Researcher (2020)

#### 5.4 Board Diversity as Determinant of Dividend Policy

This study examined board diversity in terms of foreign diversity, professional expertise diversity i.e. boards financial expertise, age diversity and gender diversity which were independent variables and dividend policy was dependent variable. In this study all the diversity variables exhibited a positive relationship with other independent variables and dividend policy when correlations were performed. In further analysis applying fixed effect regression, gender diversity variable was found to be the most important variable in the study hence contributing positive outcome to owners of the firm followed by age diversity and professional expertise diversity. Prior studies indicate that board diversity contribute benefits to firms but it also has shortcomings which include coordination issues (Van den Steen, 2010); lack of cohesiveness

(Jackson, Brett, Cooper, Julin, & Peyronnin, 1991), leading to excessive conflict and animosity, and inability to reach satisfactory agreement (Simon & Peterson, 2000); and redirection of time towards fighting and persuasion (Baranchuk & Dybrig, 2009). Diversity of the board is therefore considered a two-edged weapon (Millikan & Martins, 1996). The associations among the dependent and independent variables are therefore discussed in the ensuing sections.

#### 5.5 Specific Board Diversity Variables and Dividend policy

The section discusses the specific board diversity variables i.e. foreign diversity, professional expertise diversity i.e. boards financial expertise, age diversity and diversity of gender in relation to dividend policy.

#### 5.5.1 Foreign Diversity and Dividend Policy

The outcomes on foreign diversity were not significant in the model two (Model 2) of the study ( $\beta$ = 0.351, and p – values  $\leq$  0.178) when compared to dividend policy. The beta was positive in models 2 (two). This implies that in model two (Model 2) foreign diversity affected dividend policy positively when the independent variables and moderating variable was regressed alongside the dependent variable (dividend policy) hence foreign diversity improved dividend payout policy of firms though foreign diversity was not an essential factor in determining dividend payout policy. The outputs from model two (Model 2) was inconsistent with the findings in an investigation on the influence of diversity of the board in form of diversity of gender and foreign diversity on policy on dividend payout which postulated a positive effect on dividend payout policy (Al-Dhamari, Ismail, & Al-Gamrh, 2016) and (Miller & Del Carmen Triana, 2009). On the other hand, Wang & Clift (2009), in their study on board diversity observed that there was insignificant association between foreign diversity and performance hence compatible with the outcomes of the study. Therefore, introducing

foreign diversity to boards of companies has significant inferences on dynamics of the board. Diversity aspects (characteristics) are often categorized into activity associated and relations oriented (Pelled, 1996); (Jackson S. E., 2002). For example, age, foreign diversity and gender are associations related characteristics; tenure and functional and educational background, are activity oriented diversity features.

Reviewers of diversity studies determined that whereas old age forms of activity related diversity are often linked to positive signaling and cognitive values for example better image, innovation, creativity etc., the more associations related diversity can result to negative affective and communication values such as misunderstandings, conflict and inferior decision speed (Frances & Luis, 1996); (Williams & O'Reilly, 1998). A foreign director joining a company's board of directors could carry not only diverse knowledge, views and abilities, but also different understanding, standards and values. Nevertheless, these board members are not just foreigners since they have a quantity of additional attributes (equally in form of affiliations and demographics) that are significant to their responsibilities as board members of the corporation.

Prior studies on diversity of boards, predominantly in the European setting, has typically stressed hurdles to engaging foreign members of the board instead of examining the other related attributes and qualifications that these board members carry along (Ruigrok, Owtscharov, & Greve, 2005). Foreign directors are contemplated principal board members because they could offer enterprises with valuable global proficiency and guidance. Incidentally, Masulis, Wang, & Xie (2012), allude that foreign board members lay out state specific proficiency that is useful to cross boundary acquirers in examining goals. Foreign board members would give important views and support to corporations, predominantly to those corporations that wish to grow their activities globally. Prior substantiation indicates that directors of foreign origin are more

resourceful in relation to corporate governance (Masulis, Wang, & Xie, 2012). Yon & Park (2006), postulate that foreign board members desire short term performance because they claim extraordinary dividend disbursements rather than reinvesting returns back into the enterprise.

# **5.5.2** Professional Expertise Diversity and Dividend Policy

The outputs shows that there was no any significant association in model two (2). The beta was positive ( $\beta = 0.226$ ; p = 0.490) for models two (2). On the other hand, t value for model two (2) was positive (t = 0.691) which implies that there was minimal link between professional expertise and dividend policy. The results supported the hypothesis of the study which was inconsistent with a prior study by Hsu (2010), on the association amid members of the board attributes and financial performance where the outcomes posted a positive outcome on board quality measured by board member's expertise and educational background. Tornyera & Wereko (2012), also in their research evince an optimistic link among members of the board skills and manager's skills and performance of corporations. Thomas & Gregory (2014), in their prior study postulate that a professional board comprising of retired managers with industry precise expertise is important to groupthink attitude, as well as to the accessibility of such individual directorship positions on the board.

The study further indicates that whereas industry precise expertise's is a preferred characteristic of an independent director on the board, there are extra features that companies look for, such as global, legal/government, technology, marketing expertise and risk. In a study by Craig & James (2009), they found that firms having academic board members in their board have substantial board demographic diversity than enterprises lacking academic board member hence enterprises with board members

with academic status have the same mean stressed on knowledge based returns as other enterprises. Powel (1991), postulate that there could be an adverse link amongst skill degree and performance of the firm as a result of the professional and occupational attachments of greatly skilled managers which enhances agency behavior.

It's argued that absence of financial expertise on company's boards contributed a main role in the times of financial crunch (Kirkpatrick, 2009) and (Walker, 2009). Consequently, the existence of more board members with expertise in finance on the director's board essentially impacts decisions of the board's among them, dividend policy. Expertise in finance on the corporate boards helps in monitoring in order to protect board members from accession of disaster in their monitoring responsibility and improves provision of enhanced services to the investors' which protects their stakes. Anderson, Mansi, & Reeb (2004); Karamanou & Vafeas (2005); Agrawal & Chadha (2005); Krishnan V. R. (2005), alludes that there is an expanding group of studies on how boards financial expertise enhances the board's effectiveness, hence leading to healthier corporate practices (Krishnan V. R., 2005); (Robinson, Xue, & Zhang, 2012) and enhance performance of the corporation (Dionne & Triki, 2005); (Francis, Hasan, & Wu, 2012); (Fernandes & Fich, 2013). Consequently, due to the importance of expertise in finance of members of board, it is necessary to examine how the expertise in finance on a board influence the policy on dividend, that is contemplated an essential element in improving corporate governance and mitigating agency conflict.

According to Krishnan V. R. (2005); Agrawal & Chadha (2005) and Francis, Hasan, & Wu (2012) in a study on the association amongst financial expertise of the board and performance of the enterprise postulated that boards of directors financial expertise reduces hitches of reporting restatements and internal control. Furthermore, it impacts

an enterprise's venture (Güner, Malmendier, & Tate, 2008), earning management (Karamanou & Vafeas, 2005), hedging (Dionne & Triki, 2005) and taxes (Robinson, Xue, & Zhang, 2012). In addition, there is substantial studies on corporate governance and directors boards of corporations (Shleifer & Vishny, 1986); (Daily, Dalton, & Rajagopalan, 2003). (Johnson, Daily, & Ellstrand, 1996), classified board of director's responsibilities into three generally defined responsibilities, i.e., resource dependence roles, services and control. Beneath the control role, board members watch-dog the executives as the investors' trustee (Fama E. , 1980); (Jensen M. , 1993), and (Boone, Field, Karpoff, & Raheja, 2007) term the responsibilities as the watch-dog hypothesis. Lorsch & MacIver (1989), in Bushra, Ming, Muhammad, & Rehana (2018), allude that service roles involves board members to advice and counsel the CEO, and according to Mintzberg (1983), it is one of the predominating roles which the board members carryout.

The resource dependence responsibilities looks at members of the board of corporations as an exposed station to enable administration to access more important resources (Pfeffer & Salancik, 1978). The three clear-cut responsibilities for the board are not mutually limited and are emphasized by existence of expertise in finance. The existence of directors of the board with proficiency in finance will possibly be further important in examining a corporation's financial reporting and to guide executives in the publication of financial policy, and know-how in finance among members of the board shall encourage likely shareholders and creditors, which could enable it attract financial resources. Klein (2002), posit that the board's responsibilities as supervisors of the corporation's financial disclosure practice, Audit Committee members meet frequently with the corporation's managers and auditors to appraise the firm's financial statements, internal accounting controls and audit practices. This study therefore is

supported by the resource dependency and upper echelon theories used in the study. The resource dependency theory is relevant as the board members with financial expertise will make contributions due to their knowledge and skills acquired through their professional training and industry experiences which would be beneficial to the company and shareholders. The upper echelon is also relevant as the board members and the top executives of the firm, appointments are based on their knowledge, experiences and expertise that would be of great importance to the firm they serve. These skills, education and experiences would propel the entity to higher heights due to the skills diversity and expertise among top executives and/or members of the board of the cooperation.

# 5.5.3 Gender Diversity and Dividend Policy

The outputs in model two (2) supported the research hypothesis. The results on the link between gender diversity and policy on dividend was insignificant in model 2 ( $\beta$  = -0.031; p = 0.724) which implied that gender diversity had minimal association with policy on dividend in Kenya although the beta was negative, inferred that when gender disparity decreases the payout of dividend rises in enterprises in Kenya. These outputs are consistent with the earlier research by (Wang & Clift, 2009), (Soku, Kiyoung, & Young, 2016), and (Chen, Leung, & Goergen, 2017) who determined that companies with boards members who are diverse in terms of gender has important influence on policy on dividend payout. The investigation moreover, indicate that the board's member's diversity assists to moderate countless agency problem of free cash flow. Conversely, Nirosha & Stuart (2013), in a research on females in the board, corporate financial performance and agency overheads it was established to have a significant negative association among the ratio of ladies on the boards and enterprise worth beside an upsurge in agency overhead.

(Adams & Ferreira, 2009), alludes that presence of female board members in the directors board is likely to result to enhanced watch-dog role since women directors would not be portion of the 'old-boys' club' that enables them to be highly independent board members. In addition, by evaluating the surveillance magnitude of female directors in relation to contracts on compensation and decisions on holding. (Adams & Ferreira, 2009), posit that woman members of the board are firmer in monitoring roles than their male peers. On the other hand, academicians like (Erhardt, Werbel, & Shrader, 2003); (Hoever, Van Knippenberg, Van Ginkel, & Barkema, 2012), have postulated that gender diversity facilitates constructive monitoring by perspectives, interests, broadening expertise, experience and creativity. Furthermore, Chattopadhyay, George, & Shulman (2008), evince that diversity of gender could result in disputes as a result of absence of faith, hence is possibly to enhance enquiry. Women members of board undertake watch-dog positions, display superior board presence and requires better answerability from CEOs for declined performance (Gul, Srinidhi, & Ng, 2011). This adjacent watch-dog role could minimize the asymmetry of information at the point of the board and therefore inspire more disclosure to the public by preventing use of insider information by manager's for self-gains (Gul, Srinidhi, & Ng, 2011); (Srinidhi, Gul, & Tsui, 2011) that could afterwards limit opportunism of manager's. The appointment of women board members could greatly improve independence of the board and enhance investors' capital. According to (Abubakr & Muhammad, 2017) posited a negative connection between board members diversity in connection to gender and payments of dividend is more articulated in times of financial distress. These therefore, is supported by the agency theory since female board members are highly regarded as monitoring agents due to their sensitivity characteristics as attributed to by majority of prior studies.

## 5.5.4 Age Diversity and Dividend Policy

The results of regressing age diversity to dividend policy show that there was insignificant association. This implies that the null hypothesis (Ho<sub>4</sub>) that states that there is no significant link amongst age diversity and policy on dividend in Kenyan firms, was accepted in model two (2), This is because the result were insignificant ( $\beta$  = 0.005; p = 0.634), hence the alternative hypothesis (Ha<sub>4</sub>) that stated that there was a significant association amid diversity of age and policy on dividend in Kenya's corporations was rejected. The betas in model two (2) was positive which implied that there was limited link among diversity of age and policy on dividend among Kenya's corporations. The research was inconsistent with previous studies by (Huse & Rindova, 2001), who argued that age diversity assists in the exercise of generating distinct perspectives, consensus and help in enticing clients in distinct age sets hence as a result enhance diversity of perspectives on the board. Serfling (2012), also posit that age of chief executive officer could have an impact on organizations financial policy sets, performance of corporations and presence of agency costs within the organization.

It's known that the at most empirical study on the association between diversity of members of the board age and performance of the firm is the one by (McIntyre, Murphy, & Mitchell, 2007). Their examination of related studies on the function and role of the members of the board especially accounts for the growing utilization of organizational behavioral theory to forecast on functions of the board and enhance procedures of the board. The researchers posit that studies on governance should focus on producing and testing a theoretically sound model on effectiveness of the board, rather than attempting to relate to characteristics of team variables to performance of corporations (Wegge, Roth, Kanfer, Neubach, & Schmidt, 2008).

The selection of youthful and elderly persons to management positions brings about valuable administration viewpoints that blend creativity and experience on the members of the board (Li, Chu, Lam, & Liao, 2011). Whereas the youthful board members bring creativity to the surveillance method and make it less hectic and error prone, the older board members blend their experiences to ensure accuracy and effectiveness of the monitoring system in the entity (Wegge, Roth, Kanfer, Neubach, & Schmidt, 2008). Age diversity is a demographic variable which when well natured can contribute positively to a corporation's efficiency in terms of skills and knowledge and innovation inform of marketing of the firm's activities and/or products and services hence underpin the resource dependency theory and the upper echelon theory.

## 5.6 Moderating Effect of Chief Executive Officer Power

The ensuing section of this investigation scrutinizes the moderating effect of the chief executive officer power on association amid diversity of the board and policy on dividend in Kenyan companies listed on the Nairobi Securities Exchange. The board diversity variables discussed are foreign diversity, professional expertise diversity, age diversity and gender diversity.

## 5.6.1 Chief Executive Officer Power, Foreign Diversity and Dividend Policy

The hypothesis that chief executive officer power does not moderate link amongst foreign diversity and dividend policy in firms listed on NSE, Kenya was rejected. Based on the regression outcome of the product of independent variable (foreign diversity) and moderator variable (CEO power) with dividend policy, the output in model 8 (eight) CEO power positively and significantly moderated the relationship between foreign diversity and dividend policy ( $\beta$ = 292.0266, p – value = 0.0991) respectively. This confirmed the findings by Adams, Almeida, & Ferreiva (2005), where they found that share yields were variable in companies managed by powerful CEO's that proposed

that connections linking top managers characteristics and organizational variables had significant outcomes for corporation performance hence Chief Executive Officer power impact association amongst diversity of the board and policy on dividend of corporations.

Cedric (2009), also alludes that diversity when hitched to discussions about parity is linked to positive outcomes, at least in commercial entities. Scholars on board diversity further indicates that diversity is connected to success of business because it allows enterprises to meditate outside the box by bringing formerly excluded groups inside the box therefore enhancing performance, problem-solving and entity's creativity. Studies alludes that foreign diversity initiates diversity in cultures, know-hows and abilities which could be industrious and may result to creativity and innovation (Alesina & Eliana, 2005). Foreign diversity within the boardroom may function as an indicator to the stakeholders of the corporation's commitment to social justice hence affect the perception of the public on its performance (Miller & Del Carmen Triana, 2009). (Miller & Del Carmen Triana, 2009), also proclaimed that demographically diverse board members could improve enterprise image by positive working conditions and signaling norm adherence. This variable is therefore supported by resource dependency theory which provides that diversity in form of foreign attributes brings a bout varied perspectives in terms of skills, experiences and ideologies that would catapult the organization to higher levels of performance particularly when the chief executive officer is powerful. This means that the chief executive officer is capable to use her/his authority to influence decisions particularly dividend payout decisions.

# 5.6.2 Chief Executive Officer Power, Professional Expertise Diversity and dividend policy

Hypothesis that Chief Executive Officer Power does not moderate the link amid professional expertise and policy on dividend in Kenya was accepted. Based on the regression outputs of the products of independent (professional expertise) variables and moderator variable (CEO power) with dividend policy, the outcome in model 8 (eight), CEO power negatively and insignificantly moderated the relationship between professional expertise and dividend policy ( $\beta = -135.31$ , p – value = 0.5151). The results were consistent with prior study by (Kingsley & Theophilus, 2012) where it was postulated that management skills when measured against return on assets the outcome was negative and insignificant. These means that chief executive officer power does not moderate the link amid professional expertise and dividend policy in companies listed on Nairobi Securities Exchange, Kenya. Studies indicate that CEO's are likely to participate in self-seeking activities at shareholder's cost when given a chance (Jensen & Meckling, 1976). CEOs are therefore supposed to be monitored and offered with incentives so as to enable them act in the finest interest of investors (Fama & Jensen, 1983). Studies have also examined professional expertise diversity of directors by generally focusing on the availability of a particular type of professional expertise. Defond, Hann, & Hu (2005), examined members of the board with financial expertise and found that the reaction of the market to new director engagement is higher if the director has financial expertise which is connected to the enterprise's audit committee. On the other hand, Gray & Nowland (2014), found a confirmation that business owners gains when corporations restrict their diversity of board members to a particular subset of professional expertise (bankers, consultants, accountants, other CEOs and lawyers).

Kirkpatrick (2009) and Walker (2009), alluded that absence of board members expertise in finance on enterprise boards contributed a substantial role throughout the period of financial distress. Consequently, the existence of board members with knowhow in finance amongst the members of the board fundamentally affect the decisions of the board among them, policy on dividend. Financial knowledge of members of the directors board helps in monitoring in order to safe guard board members from being blamed of neglecting in their surveillance role and propels provision of improved services to the investors' which protects their stakes. There is an increasing bulk of studies on how financial expertise of members of the boards enhances the board's efficiency (Anderson, Mansi, & Reeb, 2004); (Karamanou & Vafeas, 2005); (Agrawal & Chadha, 2005); (Krishnan V. R., 2005)), leads to greater corporate practices (Krishnan V. R., 2005); (Robinson, Xue, & Zhang, 2012) and upgrades performance of the enterprise (Dionne & Triki, 2005); (Francis, Hasan, & Wu, 2012); (Fernandes & Fich, 2013).

Enrico, Ramilya, Philip, & Giuseppe (2016), postulate that influential CEOs can put fund in projects that does not maximize value of investment to pursue executive goals that include expense preference behavior, empire building and alike. Therefore, investors check on CEOs in order to avert such misallocation, but when ownership is spread this can be expensive (Shleifer & Vishny, 1986). A limited answer to this trouble is given by payment of dividend. These may act as a surveillance mechanism for investors since it minimizes the sum of funds that CEOs could waste in ventures that are non-value maximizing (Jensen M., 1986) and enhance the magnitude of CEO monitoring from external shareholders (Easterbrook, 1984). The study is therefore supported by the power circulation, upper echelon and resource dependence theories. The theories take their place when the chief executive officer and board members

utilizes their authority, skills, and experiences to ensure that the investors maximize returns of their outlay as emphasized in the prior studies.

# 5.6.3 Chief Executive Officer Power, Gender Diversity and Dividend Policy

Centered on the model 8 (eight) the hypothesis that Chief Executive Officer Power does not moderate the relationship amid gender diversity and policy on dividend in Kenya's corporations was not accepted. The regression outcomes though negative and significant ( $\beta$ = -0.339, p - value = 0.065) for the independent variable in model 8 (eight). The model 8 (eight) gave a positive and significant outcomes for the connections ( $\beta$ = 128.8, p - value = 0.074) that shows that CEO power moderated the link between gender diversity and policy on dividend in Kenya. The outcomes thus, are consistent with past research by Fama E. (1980), Fama & Jensen (1983) and Johnson, Daily, & Ellstrand (1996), who acknowledged the responsibilities of executives oversighting executives and the statutory responsibility of members of the board in supervising executives for the aim of shielding the interests of shareholders. As a result, nations like Spain, Norway, Sweden and UK have made the appointment of female corporation board's membership through law compulsory (Adams & Ferreira, 2009).

Sabina & Morten (2010), alludes that a fraction of women members of the board is absolutely related to the board's strategic control and indirectly to financial performance of the enterprise. They evince that female board members pays a role in minimizing the level of board conflict. Since female board members would strongly desire to arrive at a covenant in order to minimize agency problems. Gul, Shnidhi, & Mg (2011), advance that board members gender diversity could improve board quality dialogues and rise the aptitude of the board members to offer superior oversight of organization's disclosures and reports which permit more effective communication of

information to bondholders. In an investigation on powerful CEOs and their influence on corporation's performance, it was suggested that investment earnings were variable for companies managed by powerful CEOs that submitted that connections amid managerial qualities and corporation variables have significant outcomes for company's performance (Adams, Almeida, & Ferreiva, 2005).

These investigations postulate that CEO power could influence the relationship amongst diversity of the board variables more so diversity in terms of gender and policy on dividend of corporations. This research thus elucidates the bearing of resource dependency and agency theories in entities management. The agency theory could apply in the logic that the business needs powerful chief executive officers who will offer clear path on the strategic objectives and expedite controls and/or structures appropriate in the strategies accomplishment.

Resource dependency theory researchers alludes that female members of the board with board appointments carry along distinct gains and capabilities like their collaborative abilities. Hillman, Cannella, & Harris (2002), postulate that African-American women board members are unlikely to be experts in commerce than their African-American men equivalents, and that men and women African-American, board members are unlikely to be experts in commerce than Caucasion women members of the board and Caucasion men members of the board are more possible to be experts in commerce. The research display that in the US experts in commerce are predominately Caucasion men. It was noted that gender diversity is a separate dimension under resource dependency theory since female and racial minorities have human capital and distinct backgrounds which contributes to the capacity to resolve distinct environmental reliance.

## 5.6.4 Chief Executive Officer Power, Age Diversity and Dividend Policy

The hypothesis that Chief Executive Officer Power does not moderate link amid diversity of age and policy on dividend in organizations registered in Nairobi Security Exchange, Kenya was accepted. The results in model 8 (eight) indicate that the relationship was adverse and insignificant ( $\beta$ = -0.022, p - value = 0.23) with the interaction ( $\beta$ = 10.995, p - value = 0.13). These show that there was little moderation in the link between diversity of age and policy on dividend in Kenya's corporations. The output confirms research by Adams, Almeida, & Ferreiva (2005), which posit that firms run by powerful CEO's, the interactions between top managers' characteristics and organization variables has effects on corporate performance.

In studies carried out by Trond, Steen, & Lars (2006); (David, Frank, Betty, & W. Gary Simpson, 2010); Waelchli & Zellers (2012), posited that the mean age of a member of the board was adversely connected to financial performance of corporations thus show that when the mean age in the boardroom rises, financial performance of the enterprises will reduce. The key driver contributing to the negative relation was the decay of intellectual capabilities (Waelchli & Zellers, 2012). Serfling (2012), in his study on CEO age, underinvestment, and agency cost, argue that age of a CEO can have an important influence on corporate financial policy choices, the existence of agency cost within a firm and firm performance. The study postulate that old CEO's have lower sales and income growth and earn lower adjusted security returns. Serfling (2013), in another study of CEO age and riskiness of the company policies alludes that a trading strategy that goes long in portfolio of stock consists of firms managed by younger CEOs and short in portfolio of stocks comprising of firm led by elder CEOs would generate positive risk adjusted return. The researcher noted that CEO age man have a significant

influence on risk taking behavior and performance of the corporation. Rhodes (2004), posit that executive functions are proven to aging effects.

Studies on upper echelon theory allude that most studies on board diversity follows the demographical approach (Nishii, Gotte, & Raver, 2007). Factual studies that followed from (Hambrick & Mason, 1984) thinking indicate that indeed the executive team matters to corporation performance. Bantel & Jackson (1989) and Murray (1989), postulated that executive management team demographics are linked to innovation and firm performance respectively. It was thus, considered critical for corporation's practitioners and scientists equally to comprehend the features which reinforce the standards, perceptions and cognitions of executive teams. In the recent times, the differentiating attributes of these investigations was that they characteristically studied top executive management team demographic variables such as education, tenure, functional background, age, and similar variables in relation to the firm outputs (Sparrow, 1994) and (Carpenter, Geletkanycz, & Sanders, 2004). The upper echelon theory therefore, explains the interface amongst CEO Powers, age and policy on dividend in the Nairobi Securities Exchange listed firms. This is since prior studies evinces that board diversity studies follows demographical approach which is anchored in the upper echelon theory.

## 5.7 Conclusion of the Study

This research examined the influence of the board diversity and chief executive officer power on policy on dividend in Kenya. The investigation was directed by resource dependency, power circulation, signaling, upper echelon and agency theories. In harmony with the study outcomes, it was established that gender diversity was the highest vital variable in establishing the relationship amid board diversity and dividend policy decisions in Kenyan companies. The results of the study agreed with the

conclusion by (Wang & Clift, 2009), (Soku, Kiyoung, & Young, 2016) and (Chen, Leung, & Goergen, 2017), who established that diversity of the boards gender helps to ease beside free cash flow of agency problem. The research outputs thus sustained the signaling and agency theories on the research.

Foreign diversity was established to reduce decisions on dividend payment. These would be ascribed to Kenyan company's sluggishness in emphasizing acceptance of incorporation of persons on the boards from other foreign backgrounds. Professional expertise diversity exhibited minimal association with dividend policy. These could be as a result of company's failure to include in their boards persons with financial expertise. Diversity of age was established to be poorly diverse therefore resulted to too little dividend payment by Kenyan corporations. The low board diversity was ascribed to failure by company's inability to practice diversity of age so that to enhance board cooperation.

Chief executive officer power was determined to impact the association among foreign diversity, diversity of gender and policy on dividend in Kenyan enterprises positively. These insinuated that chief executive officers utilizes their dominance and power to impact the association on foreign diversity and diversity of gender that results to improved earnings to the investors in Kenyan's corporations. The outputs is thus reinforced the power circulation and resource dependency theories as referred to by Pareto (1968), Ocasio W. C. (1994), Ocasio & Kim (1999) and Agrawal & Knoeber (2001). The chief executive officer power did not have an influence on the linkage between professional expertise diversity, diversity of age and policy on dividend in Kenyan firms.

## 5.8 Contributions of the Findings to Theory and Practice

The following sections highlight contributions made by the investigation to theory and practice and policy;

#### **5.8.1** Contribution to Theory

The finding in this investigation have enriched the body of knowledge on the diversity of members of the board and dividend policy frameworks by offering empirical confirmation on how Chief Executive Officer Power moderate connection amongst board members diversity and dividend policy. The theory have continuously isolated the analysis of board members diversity to policy on dividend link that confines generalization in the setting of chief executive officer power as a moderator of the relationship. With the inclusion of chief executive officer power as a moderator in the diversity of the board and policy on dividend analysis, the research have broadened the scope on the theoretical prism on diversity of the board effects. The research have similarly enhanced on prevailing literature on diversity of the board, policy on dividend and chief executive officer power that offer a reference point for further research and academic discourse.

## **5.8.2** Contribution to Practice and Policy

Appointments of board representatives to corporations registered on the Nairobi Security Exchange have always been directed by the Capital Market Authority Act. This study contributes strategically to the industry by examining if the Capital Market Authority Act is observed in selection of members of the board therefore the verdicts offers comprehensions on contemporary practice among Kenyan companies. The findings indicate great departure from the regulatory requirements directed by the Capital Market Authority Act since only one variable exhibited compliance. The study therefore, forms a foundation from which the regulatory authority might utilize to

guarantee full compliance to the statutory or legal stipulations in order to protect the welfares of the shareholders of the corporations. The study also forms a ground on which the industry players could draw areas that may require improvements to enhance compliance and improve their firm performance for the shareholder's benefit. The firms could put in place strategies to ensure all the parameters required by the law or good practice are met.

This study also enhances the diversity of the board literature that presents the commerce case for diversity of the board through determination of the associations between diversity of the board, CEO power and dividend policy. The research provides evidence on the board diversity variables that have both positive and negative relationships with dividend policy hence would inform decision making on the intervention mechanisms in order to improve performance of firms in relation to dividend payout behavior for the benefit of the shareholders.

## 5.9 Study Recommendations

The study makes recommendations on areas of practice and policy and suggestions for further research in the ensuing sections;

## **5.9.1 Recommendations for Practice and Policy**

In regard to the outcomes and interpretations of the research, the ensuing recommendations were arrived at; Firstly, the research found out that foreign diversity among firms in Kenya did not have influence on dividend payout policy contrary to other empirical studies carried out in other economies by Al-Dhamari, Ismail, & Al-Gamrh (2016) and (Miller & Del Carmen Triana, 2009). The inquiry therefore, suggests that the policy makers requires to develop statutes that will make all corporations registered on the Nairobi Securities Exchange guarantee foreign diversity in their

boards because this would result to improvement of investors yields through diverse community's entrancement as a marketing strategy.

Secondly, the study found that professional expertise had minimal association with dividend policy which was contrary to practice as alluded to by other authors like (Hsu, 2010), (Tornyera & Wereko, 2012) and (Thomas & Gregory, 2014). The study therefore, prescribes that Nairobi Securities Exchange and Capital Market Authority develops guidelines to completely administer the Capital Market Authority Act that guides on selection of members of the board with professional expertise diversity to improve adherence with the regulations. The investors likely to gain from professional expertise diversity as a result from contributions that could enhance value to the success of the enterprises therefore, high earnings to the corporations' proprietors.

Thirdly, the study posits that age diversity did not have any influence on dividend payment policy of enterprises in Kenya contrary to prior study's findings by (Huse & Rindova, 2001) and (Serfling, 2012). The research hence recommends that the policy developer has to guarantee that laws that implement the Capital Market Authority Act are reinforced to permit full application of the Capital Market Authority Act that delivers for the selection of members of the board that has diversity in relation to age. This could also heighten image of the company through value-added market segments mainly the youth.

#### **5.9.2 Suggestions for Further Research**

Depending on the finding of the investigation, the following suggestion were made for further research;

First, this research was for a time frame of seven years which would be deemed to be too short hence may have contributed to insignificant results on most of the variables considering the modest total of enterprises enlisted on the Nairobi Securities Exchange hence the investigation recommends that another research may be carried out using the same variables but for a longer period like ten years, fifteen years or twenty years to determine whether better results would be realized among Kenyan firms.

Secondly, replicate this current study on privately held companies and SME's. This were not considered in the study hence is a viable area were an equivalent study can be performed in order to establish whether the results would be the same or otherwise. The current study only looked at firms listed on the NSE between 2009 and 2015 who were actively traded and their annual reports were available in the CMA library. There are also privately-owned firms and SME's who are not listed on the NSE and which owe shareholders a responsibility on their investments. These therefore, presents a reach set of companies for a similar study. Thirdly, use other methods of data collection for example a mix of secondary and primary data methods on appropriate variables to enrich the study. The employees could be interviewed or questionnaires issued to employees and shareholders of the firms to complete hence give their views on the study variables.

Fourthly, increase the sample size of firms for the study by incorporating some or all the unlisted companies to determine whether the study results could change positively. The current study only used forty-nine (49) firms and applied a regression model which is very powerful and for better outcome requires a larger population.

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#### **APPENDICES**

## **Appendix I: Market Fact File 2009**



## **DAILY PRICE LIST**

## NATION CENTRE, (1st FLOOR), KIMATHI STREET

P.O. BOX 43633, NAIROBI. TEL: 2831000 FAX: 224200

E-MAIL: info@nse.co.ke: Website: www.nse.co.ke

# FEATURES OF NSE EQUITY SECURITIES

## **AGRICULTURAL**

- 1 Eaagads Ltd
- 2 Kakuzi Ltd
- 3 Kapchorua Tea Co. Ltd
- 4 The Limuru Tea Co. Ltd
- 5 Rea Vipingo Plantations Ltd
- 6 Sasini Ltd
- 7 Williamson Tea Kenya Ltd

## **AUTOMOBILES & ACCESSORIES**

- 8 Car & General (K) Ltd
- 9 Marshalls (E.A.) Ltd
- 10 Sameer Africa Ltd

## **BANKING**

- 11 Barclays Bank of Kenya Ltd
- 12 CFC Stanbic of Kenya Holdings Ltd
- 13 Diamond Trust Bank Kenya Ltd

14	Equity Bank Ltd
15	Housing Finance Co.Kenya Ltd
16	I&M Holdings Ltd
17	Kenya Commercial Bank Ltd
18	National Bank of Kenya Ltd
19	NIC Bank Ltd
20	Standard Chartered Bank Kenya Ltd
21	The Co-operative Bank of Kenya Ltd
	COMMERCIAL AND SERVICES
22	Express Kenya Ltd
23	Hutchings Biemer Ltd
24	Kenya Airways Ltd
25	Longhorn Kenya Ltd
26	Nation Media Group Ltd
27	Scangroup Ltd
28	Standard Group Ltd
29	TPS Eastern Africa Ltd
30	Uchumi Supermarket Ltd
	CONSTRUCTION & ALLIED
31	ARM Cement Ltd
32	Bamburi Cement Ltd
33	Crown Paints Kenya Ltd
34	E.A.Cables Ltd
35	E.A.Portland Cement Co. Ltd

36 KenGen Co. Ltd

**ENERGY & PETROLEUM** 

37	KenolKobil Ltd
38	Kenya Power & Lighting Co Ltd
39	Total Kenya Ltd
40	Umeme Ltd
	INSURANCE
41	British-American Investments Co.(Kenya) Ltd
42	CIC Insurance Group Ltd
43	Jubilee Holdings Ltd
44	Kenya Re Insurance Corporation Ltd
45	Liberty Kenya Holdings Ltd
46	Pan Africa Insurance Holdings Ltd
	INVESTMENT
47	Centum Investment Co Ltd
48	Olympia Capital Holdings Ltd
49	Trans-Century Ltd
	INVESTMENT SERVICES
50	Nairobi Securities Exchange Ltd
	MANUFACTURING & ALLIED
51	A.Baumann & Co Ltd
52	B.O.C Kenya Ltd
53	British American Tobacco Kenya Ltd
54	Carbacid Investments Ltd
55	East African Breweries Ltd
56	Eveready East Africa Ltd
57	Kenya Orchards Ltd

Mumias Sugar Co. Ltd

59 Unga Group Ltd

# TELECOMMUNICATION & TECHNOLOGY

60 Safaricom Ltd

# **GROWTH ENTERPRISE MARKET SEGMENT (GEMS)**

- 61 Atlas Development & Support Services Ltd
- 62 Flame Tree Group Holdings Ltd
- 63 Home Afrika Ltd
- 64 Kurwitu Ventures Ltd

## **Appendix II: Document Analysis Guide**

The following was undertaken by the researcher to all firms chosen for the study.

Yrs	Dividend	Corporate	Leverage	Foreign	Professional	Age	Gender	CEO
	Policy	Size	(Risk)	diversity	Expertise			Power
2009								
2010								
2011								
2012								
2013								
2014								
2015								

## NB: -

- **1. Foreign diversity** A ratio of Non-Kenyan directors divided by the total number of directors on the firm board.
- **2. Professional Expertise Diversity** A ratio of financial expertise divided by the total number of directors on the firm board.
- **3. Gender Diversity**—Natural log of ratio of female on the board to the total board composition.
- **4. Age Diversity** Standard deviation of ages.
- **5. Corporate Size** Natural logarithm of total assets.
- **6. Leverage (Risk)** Ratio of book value of debt to the total assets.
- **7. CEO Power** A dummy equal to 1 (one) if the CEO is the only insider on the board and 0 (zero) if otherwise.
- **8. Dividend Policy** Dividend per share divided by market price per share (fiscal year ending stock price).

# **Appendix III: Descriptive Statistics**

	LOGDIVPO LICY	LOGCORP SIZE	LEVERA GE	FOREI GN	LOGGEN DER	PROFE XP	AGE	CEOPO WER
	1.210916	4.137551	0.579417	0.38144	-1.719801	0.50973	12.985	0.001919
Mean				1		8	34	
	1.264028	4.09	0.54	0.34612	-1.724564	0.5	13.69	0.0029
Median	2 205027	c 12	2.00	2	0.6021.47	0.02	21.60	0.0020
Maximum	3.295837	6.13	3.99	0.98	-0.693147	0.92	21.68	0.0029
Maximum	-0.798508	1.69	0.01	0.08	-2.65926	0.17	4.15	0
Minimum	-0.796306	1.09	0.01	0.08	-2.03920	0.17	4.13	U
	0.666383	0.801548	0.419128	0.19989	0.459588	0.19789	3.6652	0.001374
Std. Dev.				7		7	8	
	-0.447167	-0.06625	4.350144	0.27000	0.100012	0.20276	-	-0.684039
				3		8	0.4314	
Skewness	2 10 5 100	2	20.75254	2 10 11 5	2 27 1002	201011	48	4.44504
TZ	3.496488	2.665478	30.76361	2.10447	2.274003	2.04041	2.4011	1.46791
Kurtosis				5		6	54	
Jarque-	14.95387	1.850218	12098.08	15.6289	8.104547	15.5101	15.766	60.29568
Bera				6		8	67	
	0.000566	0.396488	0	0.00040	0.017383	0.00042	0.0003	0
Probabilit				4		9	77	
у								
	415.3441	1419.18	198.74	130.834	-589.8918	174.84	4453.9	0.6583
Sum				3			7	
Sum Sq.	151.8706	219.7277	60.07848	13.6658	72.23748	13.3938	4594.5	0.000646
Dev.				6		8	24	
	343	343	343	343	343	343	343	343
Observatio								
ns								

# **Appendix IV: Correlation Analysis**

	LOGDIVPO	LOGCORP	LEVER	FOREI	PROF	AGE	LOGGEN	CEOPO
	LICY	SIZE	AGE	GN	EXP		DER	WER
LOGDIVPO	1	-0.100678	0.00289	0.1685	-	0.003	0.255457	0.098808
LICY			2	84	0.0969	972		
					92			
LOGCORP	-0.100678	1	0.10805	-	0.3989	-	0.020253	-
SIZE			9	0.2494	91	0.060		0.040146
				72		52		
LEVERAG	0.002892	0.108059	1	0.1598	0.0353	-	0.091156	0.020944
E				81	49	0.116		
						06		
FOREIGN	0.168584	-0.249472	0.15988	1	_	0.081	0.190343	0.057558
		**- ** ** -	1	_	0.1702	679		
					87			
PROFEXP	-0.096992	0.398991	0.03534	_	1	_	-0.086054	_
I KOI LI	0.070772	0.570771	9	0.1702	1	0.125	0.000054	0.161242
				87		29		0.101242
AGE	0.003972	-0.060521	_	0.0816		1	-0.154908	
AGE	0.003712	-0.000321	0.11606	79	0.1252	1	-0.154700	0.029165
			0.11000	19	94			0.029103
LOCCEND	0.255457	0.020252	-	0.1002			1	0.002274
LOGGEND	0.255457	0.020253	0.09115	0.1903	- 0.0000	0.154	1	0.002374
ER			6	43	0.0860	0.154		
					54	91		
	0.098808	-0.040146	0.02094	0.0575	-	-	0.002374	1
R			4	58	0.1612	0.029		
					42	17		

## **Appendix V: Unit Root Test**

## **AGE**

Null Hypothesis: Unit root (individual unit root process)

Series: AGE

Date: 06/12/18 Time: 13:37

Sample: 2007 2013

Exogenous variables: Individual effects

Newey-West automatic bandwidth selection and Bartlett kernel

Total (balanced) observations: 234 Cross-sections included: 39 (10 dropped)

Method	Statistic	Prob.**
PP - Fisher Chi-square	115.567	0.0037
PP - Choi Z-stat		NA

Test statistic value of 'NA' due to the present of a p-value of one or zero

## Intermediate Phillips-Perron test results AGE

Cross			
section	Prob.	Bandwidth	Obs
1		Dropped from Test	
2		Dropped from Test	
3		Dropped from Test	
4		Dropped from Test	
5	0.1093	3.0	6
6		Dropped from Test	
7		Dropped from Test	
8		Dropped from Test	
9		Dropped from Test	
10	1.0000	1.0	6
11	0.6786	2.0	6
12	0.9345	0.0	6
13	0.1231	1.0	6
14	0.8562	1.0	6
15	0.5125	1.0	6
16	0.5454	5.0	6
17	0.0140	1.0	6
18	0.9880	2.0	6
19	0.0000	5.0	6
20	0.8562	1.0	6
21	0.8600	5.0	6
22	0.1095	4.0	6
23	0.6122	5.0	6
24	0.2354	1.0	6

<sup>\*\*</sup> Probabilities for Fisher tests are computed using an asymptotic Chi-square distribution. All other tests assume asymptotic normality.

25	0.9698	0.0	6
26	0.5069	5.0	6
27	0.7225	2.0	6
28	0.8562	1.0	6
29	0.0007	5.0	6
30	0.0329	0.0	6
31	0.9966	5.0	6
32	0.8163	2.0	6
33	0.0481	5.0	6
34	0.7000	5.0	6
35	0.8163	2.0	6
36	0.5002	3.0	6
37	0.5670	5.0	6
38	0.0000	5.0	6
39	0.8562	1.0	6
40	0.8163	2.0	6
41		Dropped from Test	
42	0.9491	5.0	6
43		Dropped from Test	
44	0.9092	0.0	6
45	0.5570	2.0	6
46	0.8802	1.0	6
47	0.8860	4.0	6
48	0.5312	2.0	6
49	0.0848	5.0	6

#### **FOREIGN**

Null Hypothesis: Unit root (individual unit root process)

Series: FOREIGN

Date: 06/12/18 Time: 13:40

Sample: 2007 2013

Exogenous variables: Individual effects

Newey-West automatic bandwidth selection and Bartlett kernel

Total (balanced) observations: 198

Cross-sections included: 33 (16 dropped)

Method	Statistic	Prob.**
PP - Fisher Chi-square	144.131	0.0000
PP - Choi Z-stat	-3.42885	0.0003

<sup>\*\*</sup> Probabilities for Fisher tests are computed using an asymptotic Chi-square distribution. All other tests assume asymptotic normality.

# Intermediate Phillips-Perron test results FOREIGN

Cross			
section	Prob.	Bandwidth	Obs
1	1.0000	4.0	6
2	0.0015	0.0	6
3	0.4101	0.0	6
4		Dropped from Test	
5	0.2920	3.0	6
6		Dropped from Test	
7	0.0180	5.0	6
8	0.0084	5.0	6
9	0.5618	5.0	6
10	0.0848	5.0	6
11	0.1159	5.0	6
12	0.1657	1.0	6
13	0.6927	2.0	6
14	0.0001	5.0	6
15		Dropped from Test	
16	0.3867	5.0	6
17	0.5960	2.0	6
18	0.9662	2.0	6
19		Dropped from Test	
20	0.0331	5.0	6
21	0.7102	5.0	6
22	0.0066	5.0	6
23	0.0499	0.0	6
24	0.2844	0.0	6
25		Dropped from Test	
26	0.1833	5.0	6
27	0.3747	3.0	6
28		Dropped from Test	

29		Dropped from Test	
30	0.8562	1.0	6
31		Dropped from Test	
32	0.3042	1.0	6
33		Dropped from Test	
34	0.2502	1.0	6
35		Dropped from Test	
36		Dropped from Test	
37	0.0001	1.0	6
38		Dropped from Test	
39		Dropped from Test	
40		Dropped from Test	
41	0.0193	5.0	6
42	0.0426	5.0	6
43		Dropped from Test	
44	0.7838	0.0	6
45	0.8948	0.0	6
46		Dropped from Test	
47	0.9489	0.0	6
48	0.5941	4.0	6
49	0.5992	5.0	6

## PROFESSIONAL EXPERTISES

Null Hypothesis: Unit root (individual unit root process)

Series: PROFEXP

Date: 06/12/18 Time: 13:41

Sample: 2007 2013

Exogenous variables: Individual effects

Newey-West automatic bandwidth selection and Bartlett kernel

Total (balanced) observations: 234

Cross-sections included: 39 (10 dropped)

Method	Statistic	Prob.**
PP - Fisher Chi-square	150.405	0.0000
PP - Choi Z-stat		NA

Test statistic value of 'NA' due to the present of a p-value of one or zero

## Intermediate Phillips-Perron test results PROFEXP

Cross			
section	Prob.	Bandwidth	Obs
1	0.6278	0.0	6
2		Dropped from Test	
3	1.0000	1.0	6
4	0.1625	5.0	6
5	0.5386	0.0	6
6		Dropped from Test	
7		Dropped from Test	
8		Dropped from Test	
9	0.0494	1.0	6
10	0.1036	5.0	6
11	0.0154	5.0	6
12	0.0272	5.0	6
13	0.0252	5.0	6
14	0.9227	5.0	6
15	0.0100	5.0	6
16	0.5872	4.0	6
17	0.3287	5.0	6
18	0.0389	5.0	6
19	0.3766	2.0	6
20		Dropped from Test	
21	0.0624	1.0	6
22	0.0965	2.0	6
23	0.0094	5.0	6
24	0.5406	5.0	6
25	0.5481	5.0	6
26	0.9891	0.0	6

<sup>\*\*</sup> Probabilities for Fisher tests are computed using an asymptotic Chi-square distribution. All other tests assume asymptotic normality.

27	0.7085	0.0	6
28	D	ropped from Test	
29	0.6618	1.0	6
30	0.3441	3.0	6
31	0.8333	5.0	6
32	D	ropped from Test	
33	0.1406	5.0	6
34	0.9998	1.0	6
35	0.1625	5.0	6
36	0.8163	2.0	6
37	0.0328	0.0	6
38	0.0480	0.0	6
39	D	ropped from Test	
40	D	ropped from Test	
41	0.3045	1.0	6
42	0.0228	5.0	6
43	D	ropped from Test	
44	0.1625	5.0	6
45	0.9149	3.0	6
46	0.3449	1.0	6
47	0.0013	1.0	6
48	0.0015	5.0	6
49	0.6046	4.0	6

#### **GENDER**

Null Hypothesis: Unit root (individual unit root process)

Series: LOGGENDER Date: 06/12/18 Time: 13:42

Sample: 2007 2013

Exogenous variables: Individual effects

Newey-West automatic bandwidth selection and Bartlett kernel

Total (balanced) observations: 168

Cross-sections included: 28 (21 dropped)

Method	Statistic	Prob.**
PP - Fisher Chi-square	87.6005	0.0044
PP - Choi Z-stat	0.04572	0.5182

<sup>\*\*</sup> Probabilities for Fisher tests are computed using an asymptotic Chi-square distribution. All other tests assume asymptotic normality.

# Intermediate Phillips-Perron test results LOGGENDER

Cross			
section	Prob.	Bandwidth	Obs
1		Dropped from Test	
2		Dropped from Test	
3		Dropped from Test	
4		Dropped from Test	
5	0.0001	5.0	6
6		Dropped from Test	
7		Dropped from Test	
8		Dropped from Test	
9		Dropped from Test	
10	0.2894	5.0	6
11	0.6553	1.0	6
12	1.0000	5.0	6
13	0.7046	4.0	6
14	0.0000	1.0	6
15	0.4072	2.0	6
16	0.9644	3.0	6
17	0.9320	1.0	6
18	0.0024	5.0	6
19		Dropped from Test	
20		Dropped from Test	
21	0.1461	0.0	6
22	0.8138	5.0	6
23		Dropped from Test	
24	0.0738	5.0	6
25		Dropped from Test	
26	0.8562	1.0	6
27	0.7589	0.0	6
28		Dropped from Test	

29		Dropped from Test	
30		Dropped from Test	
31	0.1625	5.0	6
32	0.1625	5.0	6
33		Dropped from Test	
34		Dropped from Test	
35		Dropped from Test	
36	0.5593	1.0	6
37	0.1625	5.0	6
38	0.1611	2.0	6
39		Dropped from Test	
40	0.7616	0.0	6
41	0.7473	0.0	6
42	0.6675	5.0	6
43		Dropped from Test	
44	0.9507	0.0	6
45	0.8027	2.0	6
46	0.9363	5.0	6
47	0.8759	1.0	6
48	0.4961	1.0	6
49		Dropped from Test	

## **CORPORATE SIZE**

Null Hypothesis: Unit root (individual unit root process)

Series: LOGCORPSIZE Date: 06/12/18 Time: 13:43

Sample: 2007 2013

Exogenous variables: Individual effects

Newey-West automatic bandwidth selection and Bartlett kernel

Total (balanced) observations: 294

Cross-sections included: 49

Method	Statistic	Prob.**
PP - Fisher Chi-square	163.965	0.0000
PP - Choi Z-stat	1.35896	0.9129

<sup>\*\*</sup> Probabilities for Fisher tests are computed using an asymptotic Chi-square distribution. All other tests assume asymptotic normality.

# Intermediate Phillips-Perron test results LOGCORPSIZE

Cross			
section	Prob.	Bandwidth	Obs
1	0.1227	5.0	6
2	0.9783	5.0	6
3	0.4856	2.0	6
4	0.8344	5.0	6
5	0.0001	5.0	6
6	0.6142	2.0	6
7	0.2103	5.0	6
8	0.9429	1.0	6
9	0.9676	1.0	6
10	0.1034	0.0	6
11	0.0012	1.0	6
12	0.0835	5.0	6
13	0.7494	5.0	6
14	0.3208	1.0	6
15	0.0372	5.0	6
16	0.9977	5.0	6
17	0.7579	5.0	6
18	0.9518	5.0	6
19	0.0354	5.0	6
20	0.7928	1.0	6
21	0.9286	0.0	6
22	0.9246	0.0	6
23	0.1800	5.0	6
24	0.0193	4.0	6
25	0.9466	5.0	6
26	0.0093	5.0	6
27	0.5150	1.0	6
28	0.8638	1.0	6

29	0.9822	4.0	6
30	0.8128	0.0	6
31	0.9746	5.0	6
32	0.0013	5.0	6
33	0.9869	5.0	6
34	0.0000	3.0	6
35	1.0000	5.0	6
36	0.9998	1.0	6
37	0.9990	5.0	6
38	0.9931	4.0	6
39	0.2974	1.0	6
40	0.7539	0.0	6
41	0.7271	1.0	6
42	0.3780	5.0	6
43	0.9653	5.0	6
44	0.9690	5.0	6
45	0.3605	2.0	6
46	0.2166	5.0	6
47	0.8106	2.0	6
48	0.0007	5.0	6
49	0.0063	5.0	6

## **LEVERAGE**

Null Hypothesis: Unit root (individual unit root process)

Series: LEVERAGE

Date: 06/12/18 Time: 13:44

Sample: 2007 2013

Exogenous variables: Individual effects

Newey-West automatic bandwidth selection and Bartlett kernel

Total (balanced) observations: 294

Cross-sections included: 49

Method	Statistic	Prob.**
PP - Fisher Chi-square	213.962	0.0000
PP - Choi Z-stat	-5.42163	0.0000

<sup>\*\*</sup> Probabilities for Fisher tests are computed using an asymptotic Chi-square distribution. All other tests assume asymptotic normality.

# Intermediate Phillips-Perron test results LEVERAGE

Cross			
section	Prob.	Bandwidth	Obs
1	0.0092	5.0	6
2	0.0572	5.0	6
3	0.7331	5.0	6
4	0.6172	0.0	6
5	0.0001	1.0	6
6	0.5834	0.0	6
7	0.6030	2.0	6
8	0.4269	1.0	6
9	0.2780	5.0	6
10	0.1239	5.0	6
11	0.8457	1.0	6
12	0.2671	0.0	6
13	0.0438	5.0	6
14	0.5117	0.0	6
15	0.7096	5.0	6
16	0.0844	1.0	6
17	0.0405	5.0	6
18	0.8336	1.0	6
19	0.0149	5.0	6
20	0.0388	5.0	6
21	0.0270	5.0	6
22	0.2066	2.0	6
23	0.0486	4.0	6
24	0.4777	5.0	6
25	0.4575	5.0	6
26	0.1534	1.0	6
27	0.0007	3.0	6
28	0.0783	0.0	6

,	29	0.0064	0.0	6
•	30	0.3842	2.0	6
	31	0.8629	5.0	6
•	32	0.7520	2.0	6
•	33	0.0096	3.0	6
•	34	0.2481	1.0	6
	35	0.0310	1.0	6
	36	0.0008	5.0	6
•	37	0.3624	1.0	6
	38	0.8334	2.0	6
	39	0.0005	5.0	6
4	40	0.3920	5.0	6
4	41	0.1114	5.0	6
4	42	0.0657	5.0	6
4	43	0.1037	5.0	6
4	44	0.9325	2.0	6
4	45	0.6704	3.0	6
4	46	0.8226	5.0	6
4	47	0.8668	5.0	6
4	48	0.7845	3.0	6
4	49	0.0676	5.0	6

#### **DIVIDEND POLICY**

Null Hypothesis: Unit root (individual unit root process)

Series: LOGDIVPOLICY Date: 06/12/18 Time: 13:45

Sample: 2007 2013

Exogenous variables: Individual effects

Newey-West automatic bandwidth selection and Bartlett kernel

Total (balanced) observations: 246 Cross-sections included: 41 (8 dropped)

Method	Statistic	Prob.**
PP - Fisher Chi-square	207.879	0.0000
PP - Choi Z-stat	-6.73856	0.0000

<sup>\*\*</sup> Probabilities for Fisher tests are computed using an asymptotic Chi-square distribution. All other tests assume asymptotic normality.

# Intermediate Phillips-Perron test results LOGDIVPOLICY

Cross	Duck	Don dry deh	Oha
section	Prob.	Bandwidth	Obs
1	0.0010	5.0	6
2	0.0040	3.0	6
3	0.0010	5.0	6
4	0.4789	1.0	6
5	0.1181	5.0	6
6	0.1110	1.0	6
7		Dropped from Test	
8		Dropped from Test	
9	0.9080	1.0	6
10		Dropped from Test	
11	0.4594	1.0	6
12	0.0405	5.0	6
13	0.3040	5.0	6
14	0.5985	4.0	6
15	0.3973	1.0	6
16	0.6282	3.0	6
17	0.1150	5.0	6
18	0.0034	1.0	6
19	0.2495	2.0	6
20		Dropped from Test	
21	0.0426	5.0	6
22	0.2984	2.0	6
23	0.2035	1.0	6
24	0.7293	5.0	6
25	0.1004	5.0	6
26	0.7165	2.0	6
27	0.0565	1.0	6
28	0.1065	1.0	6
			-

29	0.2583	1.0	6
30		Dropped from Test	
31	0.3451	4.0	6
32	0.3292	0.0	6
33		Dropped from Test	
34		Dropped from Test	
35	0.0024	5.0	6
36	0.0003	5.0	6
37	0.6245	5.0	6
38	0.7972	0.0	6
39	0.0158	1.0	6
40	0.0000	4.0	6
41	0.4071	5.0	6
42	0.0230	5.0	6
43	0.1349	2.0	6
44	0.0827	1.0	6
45		Dropped from Test	
46	0.1163	2.0	6
47	0.6675	5.0	6
48	0.0387	5.0	6
49	0.2880	0.0	6

#### **CEO POWER**

Null Hypothesis: Unit root (individual unit root process)

Series: CEOPOWER

Date: 06/12/18 Time: 13:46

Sample: 2007 2013

Exogenous variables: Individual effects

Newey-West automatic bandwidth selection and Bartlett kernel

Total (balanced) observations: 18 Cross-sections included: 3 (46 dropped)

Method	Statistic	Prob.**
PP - Fisher Chi-square	3.90589	0.6894
PP - Choi Z-stat		NA

Test statistic value of 'NA' due to the present of a p-value of one or zero

## Intermediate Phillips-Perron test results CEOPOWER

Cross			
section	Prob.	Bandwidth	Obs
1		Dropped from Test	
2		Dropped from Test	
3		Dropped from Test	
4		Dropped from Test	
5		Dropped from Test	
6		Dropped from Test	
7		Dropped from Test	
8		Dropped from Test	
9		Dropped from Test	
10		Dropped from Test	
11	1.0000	0.0	6
12		Dropped from Test	
13	0.8562	1.0	6
14	0.1657	1.0	6
15		Dropped from Test	
16		Dropped from Test	
17		Dropped from Test	
18		Dropped from Test	
19		Dropped from Test	
20		Dropped from Test	
21		Dropped from Test	
22		Dropped from Test	
23		Dropped from Test	
24		Dropped from Test	
25		Dropped from Test	
26		Dropped from Test	
27		Dropped from Test	

<sup>\*\*</sup> Probabilities for Fisher tests are computed using an asymptotic Chi-square distribution. All other tests assume asymptotic normality.

28	Dropped from Test
29	Dropped from Test
30	Dropped from Test
31	Dropped from Test
32	Dropped from Test
33	Dropped from Test
34	Dropped from Test
35	Dropped from Test
36	Dropped from Test
37	Dropped from Test
38	Dropped from Test
39	Dropped from Test
40	Dropped from Test
41	Dropped from Test
42	Dropped from Test
43	Dropped from Test
44	Dropped from Test
45	Dropped from Test
46	Dropped from Test
47	Dropped from Test
48	Dropped from Test
49	Dropped from Test

## D (VAR) ON CEO POWER

Null Hypothesis: Unit root (individual unit root process)

Series: D(CEOPOWER) Date: 05/01/19 Time: 17:02

Sample: 2007 2013

Exogenous variables: Individual effects

Newey-West automatic bandwidth selection and Bartlett kernel

Total (balanced) observations: 10 Cross-sections included: 2 (47 dropped)

Method	Statistic	Prob.**
PP - Fisher Chi-square	10.1898	0.0373
PP - Choi Z-stat	-1.90951	0.0281

<sup>\*\*</sup> Probabilities for Fisher tests are computed using an asymptotic Chi-square distribution. All other tests assume asymptotic normality.

# Intermediate Phillips-Perron test results D(CEOPOWER)

Cross			
section	Prob.	Bandwidth	Obs
1		Dropped from Test	
2		Dropped from Test	
3		Dropped from Test	
4		Dropped from Test	
5		Dropped from Test	
6		Dropped from Test	
7		Dropped from Test	
8		Dropped from Test	
9		Dropped from Test	
10		Dropped from Test	
11		Dropped from Test	
12		Dropped from Test	
13	0.2092	2.0	5
14	0.0293	2.0	5
15		Dropped from Test	
16		Dropped from Test	
17		Dropped from Test	
18		Dropped from Test	
19		Dropped from Test	
20		Dropped from Test	
21		Dropped from Test	
22		Dropped from Test	
23		Dropped from Test	
24		Dropped from Test	
25		Dropped from Test	
26		Dropped from Test	
27		Dropped from Test	
28		Dropped from Test	

29	Dropped from Test
30	Dropped from Test
31	Dropped from Test
32	Dropped from Test
33	Dropped from Test
34	Dropped from Test
35	Dropped from Test
36	Dropped from Test
37	Dropped from Test
38	Dropped from Test
39	Dropped from Test
40	Dropped from Test
41	Dropped from Test
42	Dropped from Test
43	Dropped from Test
44	Dropped from Test
45	Dropped from Test
46	Dropped from Test
47	Dropped from Test
48	Dropped from Test
49	Dropped from Test

# Appendix VI: Poolability Test

MODEL 1 (ONE)

Redundant Fixed Effects Tests

Equation: Untitled

Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	14.484478	(48,292)	0.0000
Cross-section Chi-square	417.833852	48	

Cross-section fixed effects test equation: Dependent Variable: LOGDIVPOLICY

Method: Panel Least Squares Date: 06/05/19 Time: 20:23

Sample: 2009 2015 Periods included: 7

Cross-sections included: 49

Coefficient	Std. Error	t-Statistic	Prob.
1.549576 -0.084953	0.191364 0.045118	8.097532 -1.882895	0.0000 0.0606
0.022153	0.086285	0.256745	0.7975
0.010328 0.004506 0.664880 150.3021 -345.1942 1.774083	S.D. dependent v Akaike info crite Schwarz criterion Hannan-Quinn cr	var rion n riter.	1.210916 0.666383 2.030287 2.063853 2.043657 0.466674
	1.549576 -0.084953 0.022153 0.010328 0.004506 0.664880 150.3021 -345.1942	1.549576 0.191364 -0.084953 0.045118 0.022153 0.086285  0.010328 Mean dependent 0.004506 S.D. dependent v.0.664880 Akaike info crite 150.3021 Schwarz criterior 1.345.1942 Hannan-Quinn c.1.774083 Durbin-Watson s.	1.549576 0.191364 8.097532 -0.084953 0.045118 -1.882895 0.022153 0.086285 0.256745  0.010328 Mean dependent var 0.004506 S.D. dependent var 0.664880 Akaike info criterion 150.3021 Schwarz criterion -345.1942 Hannan-Quinn criter. 1.774083 Durbin-Watson stat

# MODEL 2 (TWO)

Redundant Fixed Effects Tests

Equation: Untitled

Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F Cross-section Chi-square	12.907564 393.696282	(48,288) 48	0.0000

Cross-section fixed effects test equation: Dependent Variable: LOGDIVPOLICY

Method: Panel Least Squares Date: 06/05/19 Time: 20:29

Sample: 2009 2015 Periods included: 7

Cross-sections included: 49

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.917825	0.289164	6.632310	0.0000
LOGCORPSIZE	-0.052979	0.048936	-1.082620	0.2798
LEVERAGE	-0.039981	0.085657	-0.466760	0.6410
FOREIGN	0.347259	0.187795	1.849142	0.0653
PROFEXP	-0.099324	0.194150	-0.511586	0.6093
AGE	0.004034	0.009798	0.411707	0.6808
LOGGENDER	0.348151	0.078808	4.417704	0.0000
R-squared	0.088191	Mean dependent	var	1.210916
Adjusted R-squared	0.071909	S.D. dependent v	ar	0.666383
S.E. of regression	0.641977	Akaike info criterion		1.971667
Sum squared resid	138.4770	Schwarz criterion	1	2.049988
Log likelihood	-331.1409	Hannan-Quinn criter.		2.002865
F-statistic	5.416384	Durbin-Watson s	tat	0.539385
Prob(F-statistic)	0.000023			

# MODEL 3 (THREE)

Redundant Fixed Effects Tests

Equation: Untitled

Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	12.780289	(48,287)	0.0000
Cross-section Chi-square	392.191929	48	

Cross-section fixed effects test equation: Dependent Variable: LOGDIVPOLICY

Method: Panel Least Squares Date: 06/05/19 Time: 20:32

Sample: 2009 2015 Periods included: 7

Cross-sections included: 49

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.895122	0.289385	6.548800	0.0000
LOGCORPSIZE	-0.052466	0.048887	-1.073219	0.2839
LEVERAGE	-0.043639	0.085613	-0.509721	0.6106
FOREIGN	0.183991	0.225474	0.816017	0.4151
PROFEXP	-0.068746	0.195357	-0.351899	0.7251
AGE	0.004460	0.009793	0.455403	0.6491
LOGGENDER	0.345481	0.078752	4.386938	0.0000
M1	79.24965	60.71388	1.305297	0.1927
R-squared	0.092805	Mean dependent var		1.210916
Adjusted R-squared	0.073849	S.D. dependent var		0.666383
S.E. of regression	0.641305	Akaike info criterion		1.972425
Sum squared resid	137.7762	Schwarz criterion		2.061935
Log likelihood	-330.2709	Hannan-Quinn criter.		2.008079
F-statistic	4.895740	Durbin-Watson stat		0.542296
Prob(F-statistic)	0.000028			

# **MODEL 4 (FOUR)**

Redundant Fixed Effects Tests

Equation: Untitled

Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F Cross-section Chi-square	12.839985 393.281685	(48,287) 48	0.0000

Cross-section fixed effects test equation: Dependent Variable: LOGDIVPOLICY

Method: Panel Least Squares Date: 06/05/19 Time: 20:34

Sample: 2009 2015 Periods included: 7

Cross-sections included: 49

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.905876	0.288541	6.605225	0.0000
LOGCORPSIZE	-0.054124	0.048820	-1.108637	0.2684
LEVERAGE	-0.044197	0.085484	-0.517018	0.6055
FOREIGN	0.337693	0.187421	1.801787	0.0725
PROFEXP	-0.195757	0.202461	-0.966888	0.3343
AGE	0.004493	0.009778	0.459548	0.6461
LOGGENDER	0.349846	0.078620	4.449841	0.0000
M2	73.69999	45.10322	1.634029	0.1032
R-squared	0.095401	Mean dependent var		1.210916
Adjusted R-squared	0.076499	S.D. dependent var		0.666383
S.E. of regression	0.640387	Akaike info criterion		1.969559
Sum squared resid	137.3820	Schwarz criterion		2.059069
Log likelihood	-329.7794	Hannan-Quinn criter.		2.005214
F-statistic	5.047127	Durbin-Watson stat		0.546338
Prob(F-statistic)	0.000018			

# **MODEL 5 (FIVE)**

Redundant Fixed Effects Tests

Equation: Untitled

Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F Cross-section Chi-square	12.867489 393.782617	(48,287) 48	0.0000

Cross-section fixed effects test equation: Dependent Variable: LOGDIVPOLICY

Method: Panel Least Squares Date: 06/05/19 Time: 20:35

Sample: 2009 2015 Periods included: 7

Cross-sections included: 49

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.914530	0.289540	6.612313	0.0000
LOGCORPSIZE	-0.053694	0.049007	-1.095644	0.2740
LEVERAGE	-0.039234	0.085760	-0.457490	0.6476
FOREIGN	0.342687	0.188193	1.820935	0.0695
PROFEXP	-0.085157	0.196184	-0.434065	0.6645
AGE	0.002249	0.010370	0.216863	0.8284
LOGGENDER	0.348929	0.078906	4.422081	0.0000
M3	1.003489	1.891476	0.530532	0.5961
R-squared	0.088957	Mean dependent var		1.210916
Adjusted R-squared	0.069920	S.D. dependent var		0.666383
S.E. of regression	0.642664	Akaike info criterion		1.976658
Sum squared resid	138.3607	Schwarz criterion		2.066168
Log likelihood	-330.9969	Hannan-Quinn criter.		2.012313
F-statistic	4.672896	Durbin-Watson stat		0.540212
Prob(F-statistic)	0.000052			

#### MODEL 6 (SIX)

Redundant Fixed Effects Tests

Equation: Untitled

Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F Cross-section Chi-square	12.905703 394.477384	(48,287) 48	0.0000

Cross-section fixed effects test equation: Dependent Variable: LOGDIVPOLICY

Method: Panel Least Squares Date: 06/05/19 Time: 20:35

Sample: 2009 2015 Periods included: 7

Cross-sections included: 49

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.885634	0.288112	6.544802	0.0000
LOGCORPSIZE	-0.055471	0.048704	-1.138948	0.2555
LEVERAGE	-0.036422	0.085241	-0.427282	0.6694
FOREIGN	0.341345	0.186868	1.826665	0.0686
PROFEXP	-0.031521	0.195845	-0.160950	0.8722
AGE	0.005269	0.009766	0.539530	0.5899
LOGGENDER	0.410605	0.083852	4.896807	0.0000
M4	-30.15861	14.34857	-2.101855	0.0363
R-squared	0.100059	Mean dependent	var	1.210916
Adjusted R-squared	0.081254	S.D. dependent v	var	0.666383
S.E. of regression	0.638736	Akaike info criterion		1.964397
Sum squared resid	136.6746	Schwarz criterion		2.053906
Log likelihood	-328.8940	Hannan-Quinn criter.		2.000051
F-statistic	5.320953	Durbin-Watson stat		0.549262
Prob(F-statistic)	0.000009			

#### MODEL 7 (SEVEN)

Redundant Fixed Effects Tests

Equation: Untitled

Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F Cross-section Chi-square	12.860445 393.654397	(48,287) 48	0.0000

Cross-section fixed effects test equation: Dependent Variable: LOGDIVPOLICY

Method: Panel Least Squares Date: 06/05/19 Time: 20:37

Sample: 2009 2015 Periods included: 7

Cross-sections included: 49

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.820949	0.294056	6.192515	0.0000
LOGCORPSIZE	-0.055835	0.048832	-1.143394	0.2537
LEVERAGE	-0.041708	0.085430	-0.488212	0.6257
FOREIGN	0.333768	0.187455	1.780527	0.0759
PROFEXP	-0.045659	0.196225	-0.232688	0.8161
AGE	0.004949	0.009787	0.505695	0.6134
LOGGENDER	0.352325	0.078633	4.480649	0.0000
CEOPOWER	43.13071	25.60700	1.684333	0.0930
R-squared	0.095848	Mean dependent	var	1.210916
Adjusted R-squared	0.076955	S.D. dependent v	ar	0.666383
S.E. of regression	0.640229	Akaike info criterion		1.969065
Sum squared resid	137.3141	Schwarz criterion		2.058575
Log likelihood	-329.6946	Hannan-Quinn criter.		2.004719
F-statistic	5.073279	Durbin-Watson s	tat	0.545817
Prob(F-statistic)	0.000017			

# MODEL 8 (EIGHT)

Dependent Variable: LOGDIVPOLICY

Method: Panel Least Squares Date: 06/05/19 Time: 20:39

Sample: 2009 2015 Periods included: 7

Cross-sections included: 49

Total panel (balanced) observations: 343

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.461793	0.716910	-2.039018	0.0424
LOGCORPSIZE	0.490277	0.153483	3.194334	0.0016
LEVERAGE	0.381748	0.153783	2.482380	0.0136
FOREIGN	-0.117284	0.360403	-0.325426	0.7451
PROFEXP	0.544181	0.539581	1.008525	0.3141
AGE	-0.022106	0.018299	-1.208058	0.2280
LOGGENDER	-0.338542	0.182787	-1.852116	0.0651
CEOPOWER	-26.10358	208.1282	-0.125421	0.9003
M1	292.0266	176.4771	1.654756	0.0991
M2	-135.3058	207.6206	-0.651698	0.5151
M3	11.23109	7.404798	1.516732	0.1305
M4	128.8015	71.75283	1.795073	0.0737

# **Effects Specification**

Cross-section fixed (dummy variables)				
R-squared	0.720201	Mean dependent var	1.210916	
Adjusted R-squared	0.661869	S.D. dependent var	0.666383	
S.E. of regression	0.387495	Akaike info criterion	1.099345	
Sum squared resid	42.49319	Schwarz criterion	1.770668	
Log likelihood	-128.5376	Hannan-Quinn criter.	1.366753	
F-statistic	12.34647	Durbin-Watson stat	1.651000	
Prob(F-statistic)	0.000000			

#### **Appendix VII: Hausman Test**

MODEL 1 (ONE)

Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	16.936271	2	0.0002

#### Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
LOGCORPSIZE	0.518347	0.109534	0.012541	0.0003
LEVERAGE	0.369145	0.248072	0.008207	0.1814

Cross-section random effects test equation: Dependent Variable: LOGDIVPOLICY

Method: Panel Least Squares Date: 06/05/19 Time: 20:46

Sample: 2007 2013 Periods included: 7

Cross-sections included: 49

Total panel (balanced) observations: 343

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C LOGCORPSIZE LEVERAGE	-1.147662 0.518347 0.369145	0.571904 0.139152 0.151779	-2.006738 3.725037 2.432125	0.0457 0.0002 0.0156
	Effects Spec	rification		

#### Cross-section fixed (dummy variables) R-squared 0.707285 Mean dependent var 1.210916 Adjusted R-squared S.D. dependent var 0.666383 0.657163 S.E. of regression Akaike info criterion 0.390183 1.091996 Sum squared resid 44.45479 Schwarz criterion 1.662620 Log likelihood Hannan-Quinn criter. -136.2772 1.319293 **Durbin-Watson stat** F-statistic 14.11115 1.598310 0.000000 Prob(F-statistic)

#### MODEL 2 (TWO)

Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	19.972757	6	0.0028

### Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
LOGCORPSIZE	0.487243	0.093911	0.014238	0.0010
LEVERAGE	0.353661	0.208296	0.008764	0.1205
FOREIGN	0.396390	0.465647	0.016640	0.5913
PROFEXP	0.226249	0.110853	0.036440	0.5455
AGE	0.004654	0.009022	0.000013	0.2202
LOGGENDER	-0.031443	0.094123	0.001384	0.0007

Cross-section random effects test equation: Dependent Variable: LOGDIVPOLICY

Method: Panel Least Squares Date: 06/05/19 Time: 20:49

Sample: 2007 2013 Periods included: 7

Cross-sections included: 49

Total panel (balanced) observations: 343

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.391025	0.639707	-2.174473	0.0305
LOGCORPSIZE	0.487243	0.147265	3.308607	0.0011
LEVERAGE	0.353661	0.153725	2.300611	0.0221
FOREIGN	0.396390	0.258433	1.533821	0.1262
PROFEXP	0.226249	0.327512	0.690812	0.4902
AGE	0.004654	0.009756	0.476980	0.6337
LOGGENDER	-0.031443	0.088825	-0.353987	0.7236

# Effects Specification

R-squared	0.710653	Mean dependent var	1.210916
Adjusted R-squared		S.D. dependent var	0.666383
S.E. of regression	0.390616	Akaike info criterion	1.103748
Sum squared resid	43.94336	Schwarz criterion	1.719127
Log likelihood	-134.2928	Hannan-Quinn criter.	1.348872
F-statistic	13.09896	Durbin-Watson stat	1.608264
Prob(F-statistic)	0.000000		

#### **MODEL THREE**

Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	20.038291	7	0.0055

#### Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
LOGCORPSIZE	0.497779	0.100367	0.014700	0.0010
LEVERAGE	0.356229	0.208374	0.008747	0.1139
FOREIGN	0.314133	0.383434	0.028369	0.6807
PROFEXP	0.223438	0.119499	0.036083	0.5843
AGE	0.003987	0.008603	0.000014	0.2222
LOGGENDER	-0.033461	0.091166	0.001382	0.0008
M1	64.905223	54.844558	11371.796321	0.9248

Cross-section random effects test equation: Dependent Variable: LOGDIVPOLICY

Method: Panel Least Squares Date: 06/05/19 Time: 20:51

Sample: 2007 2013 Periods included: 7

Cross-sections included: 49

Total panel (balanced) observations: 343

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.446656	0.652729	-2.216321	0.0275
LOGCORPSIZE	0.497779	0.149366	3.332603	0.0010
LEVERAGE	0.356229	0.154048	2.312456	0.0215
FOREIGN	0.314133	0.318227	0.987133	0.3244
PROFEXP	0.223438	0.328030	0.681150	0.4963
AGE	0.003987	0.009885	0.403396	0.6870
LOGGENDER	-0.033461	0.089065	-0.375688	0.7074
M1	64.90522	146.1229	0.444182	0.6572

#### **Effects Specification**

R-squared Adjusted R-squared S.E. of regression Sum squared resid	0.655440 0.391162	Mean dependent var S.D. dependent var Akaike info criterion Schwarz criterion	1.210916 0.666383 1.108892 1.735460
Log likelihood		Hannan-Quinn criter.	1.358473

F-statistic 12.82853 Durbin-Watson stat 1.611606 Prob(F-statistic) 0.000000

#### **MODEL 4 (FOUR)**

Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	22.354474	7	0.0022

#### Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
LOGCORPSIZE	0.442190	0.090096	0.015112	0.0042
LEVERAGE	0.367837	0.213264	0.008732	0.0981
FOREIGN	0.343246	0.456797	0.017657	0.3928
PROFEXP	0.568066	0.186686	0.076556	0.1681
AGE	0.005536	0.009159	0.000013	0.3131
LOGGENDER	-0.026459	0.094156	0.001381	0.0012
M2	-154.079363	-40.125360	6592.489216	0.1605

Cross-section random effects test equation: Dependent Variable: LOGDIVPOLICY

Method: Panel Least Squares Date: 06/05/19 Time: 20:53

Sample: 2007 2013 Periods included: 7

Cross-sections included: 49

Total panel (balanced) observations: 343

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.225683	0.649617	-1.886777	0.0602
LOGCORPSIZE	0.442190	0.150546	2.937253	0.0036
LEVERAGE	0.367837	0.153812	2.391465	0.0174
FOREIGN	0.343246	0.260822	1.316018	0.1892
PROFEXP	0.568066	0.408905	1.389236	0.1658
AGE	0.005536	0.009761	0.567143	0.5711
LOGGENDER	-0.026459	0.088753	-0.298121	0.7658
M2	-154.0794	110.6791	-1.392126	0.1650

#### **Effects Specification**

R-squared 0.712593 Mean dependent var 1.210	0.712593 Mean dependent var 1.2109	916
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Adjusted R-squared	0.657516	S.D. dependent var	0.666383
S.E. of regression	0.389982	Akaike info criterion	1.102849
Sum squared resid	43.64861	Schwarz criterion	1.729417
Log likelihood	-133.1386	Hannan-Quinn criter.	1.352430
F-statistic	12.93792	Durbin-Watson stat	1.601986
Prob(F-statistic)	0.000000		

#### **MODEL 5 (FIVE)**

Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	20.077641	7	0.0054

#### Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
LOGCORPSIZE LEVERAGE FOREIGN PROFEXP AGE LOGGENDER	0.480007 0.358889 0.392256 0.226318 0.010068	0.095488 0.211273 0.465523 0.108772 0.010568 0.093748	0.014336 0.008749 0.016501 0.035834 0.000063 0.001424	0.0013 0.1145 0.5684 0.5346 0.9497 0.0014
M3	-0.026508 -2.529522	-0.744163	10.491960	0.0014

Cross-section random effects test equation: Dependent Variable: LOGDIVPOLICY

Method: Panel Least Squares Date: 06/05/19 Time: 20:53

Sample: 2007 2013 Periods included: 7

Cross-sections included: 49

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.361731	0.642604	-2.119082	0.0349
LOGCORPSIZE	0.480007	0.148006	3.243153	0.0013
LEVERAGE	0.358889	0.154191	2.327555	0.0206
FOREIGN	0.392256	0.258847	1.515397	0.1308
PROFEXP	0.226318	0.327903	0.690198	0.4906
AGE	0.010068	0.013746	0.732453	0.4645
LOGGENDER	-0.026508	0.089367	-0.296623	0.7670
M3	-2.529522	4.518122	-0.559861	0.5760

Cross-section fixed (du	mmy variables)		
R-squared	0.710968	Mean dependent var	1.210916
Adjusted R-squared	0.655579	S.D. dependent var	0.666383
S.E. of regression	0.391083	Akaike info criterion	1.108487
Sum squared resid	43.89542	Schwarz criterion	1.735055
Log likelihood	-134.1056	Hannan-Quinn criter.	1.358068
F-statistic	12.83583	Durbin-Watson stat	1.606958
Prob(F-statistic)	0.000000		

#### MODEL 6 (SIX)

Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	25.392779	7	0.0006

# Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
LOGCORPSIZE	0.468416	0.093303	0.014096	0.0016
LEVERAGE	0.368300	0.210989	0.008648	0.0907
FOREIGN	0.337037	0.459323	0.016985	0.3481
PROFEXP	0.239210	0.102248	0.035528	0.4674
AGE	0.004244	0.008905	0.000012	0.1866
LOGGENDER	-0.189764	0.066266	0.004416	0.0001
M4	72.678427	12.751464	619.780994	0.0161

Cross-section random effects test equation: Dependent Variable: LOGDIVPOLICY

Method: Panel Least Squares Date: 06/05/19 Time: 20:55

Sample: 2007 2013 Periods included: 7

Cross-sections included: 49

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.332756	0.636512	-2.093843	0.0372
LOGCORPSIZE	0.468416	0.146664	3.193812	0.0016
LEVERAGE	0.368300	0.152970	2.407656	0.0167
FOREIGN	0.337037	0.258437	1.304138	0.1932
PROFEXP	0.239210	0.325627	0.734615	0.4632

	Effects Spec	ification	2.130300	
M4	72.67843	34.46161	2.108968	0.0358
LOGGENDER	-0.189764	0.115897	-1.637349	0.1027
AGE	0.004244	0.009701	0.437501	0.6621

Cross-section fixed	(dummy	variables)
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Cross-section fixed (dui	miny variables)		
R-squared	0.715068	Mean dependent var	1.210916
Adjusted R-squared	0.660465	S.D. dependent var	0.666383
S.E. of regression	0.388299	Akaike info criterion	1.094200
Sum squared resid	43.27274	Schwarz criterion	1.720768
Log likelihood	-131.6553	Hannan-Quinn criter.	1.343781
F-statistic	13.09562	<b>Durbin-Watson stat</b>	1.624023
Prob(F-statistic)	0.000000		

#### **MODEL 7 (SEVEN)**

Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	22.989565	7	0.0017

#### Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
LOGCORPSIZE	0.470997	0.094709	0.014214	0.0016
LEVERAGE	0.359812	0.210482	0.008654	0.1084
FOREIGN	0.350513	0.463913	0.017230	0.3876
PROFEXP	0.261515	0.108936	0.036334	0.4234
AGE	0.005705	0.009073	0.000013	0.3486
LOGGENDER	-0.031028	0.093204	0.001365	0.0008
CEOPOWER	-118.818981	-10.299483	3745.992255	0.0762

Cross-section random effects test equation: Dependent Variable: LOGDIVPOLICY

Method: Panel Least Squares Date: 06/05/19 Time: 20:56

Sample: 2007 2013 Periods included: 7

Cross-sections included: 49

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C LOGCORPSIZE LEVERAGE FOREIGN PROFEXP AGE LOGGENDER CEOPOWER	-1.112745	0.663011	-1.678320	0.0944
	0.470997	0.147284	3.197874	0.0015
	0.359812	0.153405	2.345502	0.0197
	0.350513	0.259508	1.350683	0.1779
	0.261515	0.327515	0.798483	0.4253
	0.005705	0.009757	0.584734	0.5592
	-0.031028	0.088611	-0.350160	0.7265
	-118.8190	76,77504	-1.547625	0.1228

# **Effects Specification**

# Cross-section fixed (dummy variables)

R-squared Adjusted R-squared S.E. of regression Sum squared resid Log likelihood	43.57967 -132.8674	S.D. dependent var Akaike info criterion Schwarz criterion Hannan-Quinn criter.	1.210916 0.666383 1.101268 1.727836 1.350849
*		Hannan-Quinn criter. Durbin-Watson stat	1.350849 1.612300
Prob(F-statistic)	0.000000	z drom wason stat	1.012300

# MODEL 8 (EIGHT)

Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	40.161505	11	0.0000

# Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
LOGCORPSIZE	0.490277	0.078085	0.016500	0.0013
LEVERAGE	0.381748	0.201680	0.009583	0.0659
FOREIGN	-0.117284	0.204032	0.026779	0.0496
PROFEXP	0.544181	0.351522	0.112366	0.5655
AGE	-0.022106	0.007779	0.000059	0.0001
LOGGENDER	-0.338542	0.013726	0.008970	0.0002
CEOPOWER	-26.103579	85.070679	14912.996436	0.3626
M1	292.026594	149.861264	9310.862979	0.1407
M2	-135.305812	-126.212806	15992.198053	0.9427
M3	11.231092	-0.087684	8.783750	0.0001
M4	128.801546	40.700310	1235.381160	0.0122

Cross-section random effects test equation: Dependent Variable: LOGDIVPOLICY

Method: Panel Least Squares Date: 06/05/19 Time: 20:57

Sample: 2007 2013 Periods included: 7

Cross-sections included: 49

Total panel (balanced) observations: 343

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.461793	0.716910	-2.039018	0.0424
LOGCORPSIZE	0.490277	0.153483	3.194334	0.0016
LEVERAGE	0.381748	0.153783	2.482380	0.0136
FOREIGN	-0.117284	0.360403	-0.325426	0.7451
PROFEXP	0.544181	0.539581	1.008525	0.3141
AGE	-0.022106	0.018299	-1.208058	0.2280
LOGGENDER	-0.338542	0.182787	-1.852116	0.0651
CEOPOWER	-26.10358	208.1282	-0.125421	0.9003
M1	292.0266	176.4771	1.654756	0.0991
M2	-135.3058	207.6206	-0.651698	0.5151
M3	11.23109	7.404798	1.516732	0.1305
M4	128.8015	71.75283	1.795073	0.0737

# **Effects Specification**

Cross-section fixed (dur	mmy variables)		
R-squared	0.720201	Mean dependent var	1.210916
Adjusted R-squared	0.661869	S.D. dependent var	0.666383
S.E. of regression	0.387495	Akaike info criterion	1.099345
Sum squared resid	42.49319	Schwarz criterion	1.770668
Log likelihood	-128.5376	Hannan-Quinn criter.	1.366753
F-statistic	12.34647	Durbin-Watson stat	1.651000
Prob(F-statistic)	0.000000		

#### **Appendix VIII: Regression Results**

#### MODEL ONE (CONTROL EFFECT)

Dependent Variable: LOGDIVPOLICY

Method: Panel Least Squares Date: 04/18/19 Time: 17:42

Sample: 2009 2015 Periods included: 7

Cross-sections included: 49

Total panel (balanced) observations: 343

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.147662	0.571904	-2.006738	0.0457
LOGCORPSIZE	0.518347	0.139152	3.725037	0.0002
LEVERAGE	0.369145	0.151779	2.432125	0.0156
	Effects Spe	ecification		
Cross-section fixed (dumr	ny variables)			
R-squared	0.707285	Mean dependent	var	1.210916
Adjusted R-squared	0.657163	S.D. dependent	var	0.666383
S.E. of regression	0.390183	Akaike info criterion		1.091996
Sum squared resid	44.45479	Schwarz criterion		1.662620
Log likelihood	-136.2772	Hannan-Quinn c	riter.	1.319293
F-statistic	14.11115	Durbin-Watson	stat	1.598310
Prob(F-statistic)	0.000000			

#### MODEL TWO (DIRECT EFFECT)

Dependent Variable: LOGDIVPOLICY

Method: Panel Least Squares Date: 04/18/19 Time: 17:36

Sample: 2007 2013 Periods included: 7

Cross-sections included: 49

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.391025	0.639707	-2.174473	0.0305
LOGCORPSIZE	0.487243	0.147265	3.308607	0.0011
LEVERAGE	0.353661	0.153725	2.300611	0.0221
FOREIGN	0.396390	0.258433	1.533821	0.1262
PROFEXP	0.226249	0.327512	0.690812	0.4902
AGE	0.004654	0.009756	0.476980	0.6337
LOGGENDER	-0.031443	0.088825	-0.353987	0.7236

# **Effects Specification**

Cross-section fixed (dummy variables)				
R-squared	0.710653	Mean dependent var	1.210916	
Adjusted R-squared	0.656400	S.D. dependent var	0.666383	
S.E. of regression	0.390616	Akaike info criterion	1.103748	
Sum squared resid	43.94336	Schwarz criterion	1.719127	
Log likelihood	-134.2928	Hannan-Quinn criter.	1.348872	
F-statistic	13.09896	Durbin-Watson stat	1.608264	
Prob(F-statistic)	0.000000			

#### **MODEL THREE**

Dependent Variable: LOGDIVPOLICY

Method: Panel Least Squares Date: 06/23/19 Time: 12:53

Sample: 2009 2015 Periods included: 7

Cross-sections included: 49

Total panel (balanced) observations: 343

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.446656	0.652729	-2.216321	0.0275
LOGCORPSIZE	0.497779	0.149366	3.332603	0.0010
LEVERAGE	0.356229	0.154048	2.312456	0.0215
FOREIGN	0.314133	0.318227	0.987133	0.3244
PROFEXP	0.223438	0.328030	0.681150	0.4963
AGE	0.003987	0.009885	0.403396	0.6870
LOGGENDER	-0.033461	0.089065	-0.375688	0.7074
M1	64.90522	146.1229	0.444182	0.6572

# **Effects Specification**

R-squared Adjusted R-squared S.E. of regression Sum squared resid Log likelihood F-statistic	0.655440 0.391162 43.91317 -134.1749 12.82853	Mean dependent var S.D. dependent var Akaike info criterion Schwarz criterion Hannan-Quinn criter. Durbin-Watson stat	1.210916 0.666383 1.108892 1.735460 1.358473 1.611606
Prob(F-statistic)	0.000000		

#### **MODEL FOUR**

Dependent Variable: LOGDIVPOLICY

Method: Panel Least Squares Date: 04/18/19 Time: 17:31

Sample: 2007 2013 Periods included: 7

Cross-sections included: 49

Total panel (balanced) observations: 343

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.225683	0.649617	-1.886777	0.0602
LOGCORPSIZE	0.442190	0.150546	2.937253	0.0036
LEVERAGE	0.367837	0.153812	2.391465	0.0174
FOREIGN	0.343246	0.260822	1.316018	0.1892
PROFEXP	0.568066	0.408905	1.389236	0.1658
AGE	0.005536	0.009761	0.567143	0.5711
LOGGENDER	-0.026459	0.088753	-0.298121	0.7658
M2	-154.0794	110.6791	-1.392126	0.1650

#### **Effects Specification**

#### Cross-section fixed (dummy variables)

R-squared	0.712593	Mean dependent var	1.210916
Adjusted R-squared	0.657516	S.D. dependent var	0.666383
S.E. of regression	0.389982	Akaike info criterion	1.102849
Sum squared resid	43.64861	Schwarz criterion	1.729417
Log likelihood	-133.1386	Hannan-Quinn criter.	1.352430
F-statistic	12.93792	Durbin-Watson stat	1.601986
Prob(F-statistic)	0.000000		
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### **MODEL FIVE**

Dependent Variable: LOGDIVPOLICY

Method: Panel Least Squares Date: 04/18/19 Time: 17:30

Sample: 2007 2013 Periods included: 7

Cross-sections included: 49

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.361731	0.642604	-2.119082	0.0349
LOGCORPSIZE	0.480007	0.148006	3.243153	0.0013
LEVERAGE	0.358889	0.154191	2.327555	0.0206
FOREIGN	0.392256	0.258847	1.515397	0.1308
PROFEXP	0.226318	0.327903	0.690198	0.4906

AGE LOGGENDER M3	0.010068 -0.026508 -2.529522	0.013746 0.089367 4.518122	0.732453 -0.296623 -0.559861	0.4645 0.7670 0.5760
	Effects Spe			
Cross-section fixed (dummy				
R-squared	0.710968	Mean dependent var 1.210		1.210916
Adjusted R-squared	0.655579	S.D. dependent var 0.66		0.666383
S.E. of regression	0.391083	Akaike info criterion 1.10		1.108487
Sum squared resid	43.89542	Schwarz criterion 1.73		1.735055
Log likelihood	-134.1056	Hannan-Quinn criter. 1.358		1.358068
F-statistic	12.83583	Durbin-Watson stat 1.606		1.606958
Prob(F-statistic)	0.000000			

#### **MODEL SIX**

Dependent Variable: LOGDIVPOLICY

Method: Panel Least Squares Date: 04/18/19 Time: 17:27

Sample: 2007 2013 Periods included: 7

Cross-sections included: 49

Total panel (balanced) observations: 343

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.332756	0.636512	-2.093843	0.0372
LOGCORPSIZE	0.468416	0.146664	3.193812	0.0016
LEVERAGE	0.368300	0.152970	2.407656	0.0167
FOREIGN	0.337037	0.258437	1.304138	0.1932
PROFEXP	0.239210	0.325627	0.734615	0.4632
AGE	0.004244	0.009701	0.437501	0.6621
LOGGENDER	-0.189764	0.115897	-1.637349	0.1027
M4	72.67843	34.46161	2.108968	0.0358

### **Effects Specification**

Cross-section	fixed	(dummy	variables)

-			
R-squared	0.715068	Mean dependent var	1.210916
Adjusted R-squared	0.660465	S.D. dependent var	0.666383
S.E. of regression	0.388299	Akaike info criterion	1.094200
Sum squared resid	43.27274	Schwarz criterion	1.720768
Log likelihood	-131.6553	Hannan-Quinn criter.	1.343781
F-statistic	13.09562	Durbin-Watson stat	1.624023
Prob(F-statistic)	0.000000		

#### **MODEL SEVEN**

Dependent Variable: LOGDIVPOLICY

Method: Panel Least Squares Date: 06/23/19 Time: 12:58

Sample: 2009 2015 Periods included: 7

Cross-sections included: 49

Total panel (balanced) observations: 343

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.112745	0.663011	-1.678320	0.0944
LOGCORPSIZE	0.470997	0.147284	3.197874	0.0015
LEVERAGE	0.359812	0.153405	2.345502	0.0197
FOREIGN	0.350513	0.259508	1.350683	0.1779
PROFEXP	0.261515	0.327515	0.798483	0.4253
AGE	0.005705	0.009757	0.584734	0.5592
LOGGENDER	-0.031028	0.088611	-0.350160	0.7265
CEOPOWER	-118.8190	76.77504	-1.547625	0.1228

#### **Effects Specification**

Closs section fixed (duffin) variables	Cross-section	fixed	(dummy	variables)
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R-squared Adjusted R-squared S.E. of regression Sum squared resid Log likelihood F-statistic	0.658057 0.389674 43.57967 -132.8674 12.96664	Mean dependent var S.D. dependent var Akaike info criterion Schwarz criterion Hannan-Quinn criter. Durbin-Watson stat	1.210916 0.666383 1.101268 1.727836 1.350849 1.612300
Prob(F-statistic)	0.000000		

#### **MODEL EIGHT**

Dependent Variable: LOGDIVPOLICY

Method: Panel Least Squares Date: 04/18/19 Time: 17:23

Sample: 2007 2013 Periods included: 7

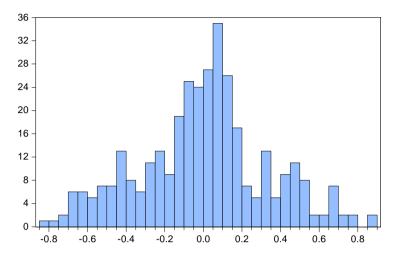
Cross-sections included: 49

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.461793	0.716910	-2.039018	0.0424
LOGCORPSIZE	0.490277	0.153483	3.194334	0.0016
LEVERAGE	0.381748	0.153783	2.482380	0.0136
FOREIGN	-0.117284	0.360403	-0.325426	0.7451
PROFEXP	0.544181	0.539581	1.008525	0.3141
AGE	-0.022106	0.018299	-1.208058	0.2280

LOGGENDER CEOPOWER M1 M2 M3 M4	-0.338542 -26.10358 292.0266 -135.3058 11.23109 128.8015	0.182787 208.1282 176.4771 207.6206 7.404798 71.75283	-1.852116 -0.125421 1.654756 -0.651698 1.516732 1.795073	0.0651 0.9003 0.0991 0.5151 0.1305 0.0737	
Effects Specification					
Cross-section fixed (dummy variables)					
R-squared	0.720201	Mean dependent var 1.210916			
Adjusted R-squared	0.661869	S.D. dependent var 0.66638			
S.E. of regression	0.387495	Akaike info criterion 1.09934		1.099345	
Sum squared resid	42.49319	Schwarz criterion 1.77066		1.770668	
Log likelihood	-128.5376	Hannan-Quinn criter. 1.3667:		1.366753	
F-statistic	12.34647	Durbin-Watson stat 1.65100		1.651000	
Prob(F-statistic)	0.000000				

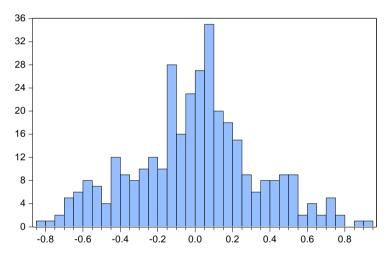
# **Appendix IX: Normality Test**

# **Model One**



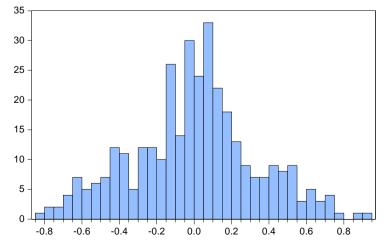
Series: Standardized Residuals Sample 2009 2015 Observations 343				
Mean	-4.53e-18			
Median	0.009604			
Maximum	0.881758			
Minimum	-0.814879			
Std. Dev.	0.332894			
Skewness	0.026765			
Kurtosis	2.898156			
Jarque-Bera	0.189190			
Probability	0.909741			

# **Model Two**



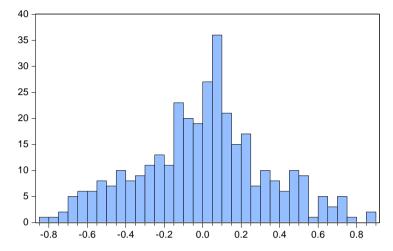
Series: Standardized Residuals Sample 2009 2015 Observations 343				
Mean	-1.25e-17			
Median	0.022721			
Maximum	0.903355			
Minimum	-0.815134			
Std. Dev.	0.332501			
Skewness	0.021133			
Kurtosis	2.881341			
Jarque-Bera	0.226757			
Probability	0.892813			

# **Model Three**



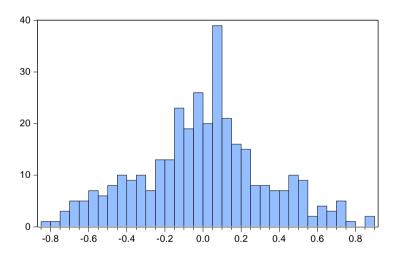
Series: Standardized Residuals Sample 2009 2015 Observations 343					
Mean	-1.62e-19				
Median	0.007867				
Maximum	0.915972				
Minimum	-0.819216				
Std. Dev.	0.331354				
Skewness	0.020235				
Kurtosis	2.885340				
Jarque-Bera	0.211298				
Probability	0.899740				

### **Model Four**



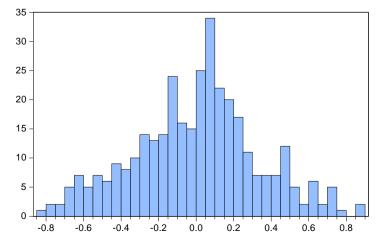
Series: Stand Sample 2009 Observations										
Mean 6.15e-18										
Median	0.014791									
Maximum	0.888208									
Minimum	-0.815372									
Std. Dev.	0.332773									
Skewness	0.018633									
Kurtosis	2.848107									
Jarque-Bera	0.349579									
Probability	0.839634									

# **Model Five**



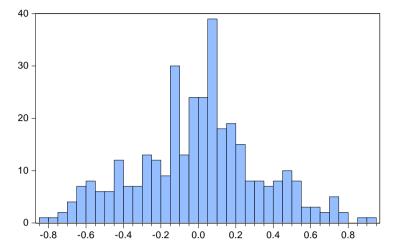
Series: Stand Sample 2009 Observations	
Mean	1.62e-19
Median	0.018511
Maximum	0.899231
Minimum	-0.815555
Std. Dev.	0.331896
Skewness	0.007713
Kurtosis	2.873541
Jarque-Bera	0.231951
Probability	0.890497

# **Model Six**



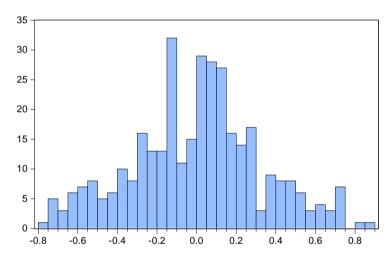
Series: Stand Sample 2009 Observations	
Mean	6.80e-18
Median	0.023210
Maximum	0.883833
Minimum	-0.806437
Std. Dev.	0.332305
Skewness	-0.000845
Kurtosis	2.851656
Jarque-Bera	0.314540
Probability	0.854473

# **Model Seven**



Series: Stand Sample 2009 Observations	
Mean	-1.38e-17
Median	0.023866
Maximum	0.902892
Minimum	-0.813923
Std. Dev.	0.331604
Skewness	0.008038
Kurtosis	2.873918
Jarque-Bera	0.230883
Probability	0.890973

# **Model Eight**



Series: Stand Sample 2009 Observations	
Mean	-1.13e-17
Median	0.017699
Maximum	0.879694
Minimum	-0.775312
Std. Dev.	0.329407
Skewness	0.030663
Kurtosis	2.863137
Jarque-Bera	0.321456
Probability	0.851524

Appendix X: Study Data Collected From Firms Listed on the Nairobi Securities

Exchange between 2009 and 2015

O BS	LOGDIVP OLICY	LOGCOR PSIZE	LEVER AGE	FOREI GN	PROF EXP	A GE	LOGGE NDER	CEOPO WER	M1	M2	M3	M4
20 09	1.3862943 61	3.38	0.47	0.71	0.25	13. 75	1.724564 131	0.0029	0.00205	0.000 725	0.039 875	0.00500 1236
20 10	1.3862943 61	3.43	0.41	0.67	0.29	13. 75	1.724564 131	0.0029	0.00194	0.000 841	0.039 875	0.00500 1236
20	2.0794415 42	3.46	0.34	0.71	0.29	13. 75	1.724564 131	0.0029	0.00205	0.000	0.039 875	0.00500 1236
20	1.0986122	3.51	0.31	0.67	0.29	13. 75	1.724564 131	0.0029	0.00194	0.000	0.039 875	0.00500 1236
20	1.6094379 12	3.58	0.28	0.67	0.29	13. 75	1.724564 131	0.0029	0.00194	0.000	0.039 875	0.00500 1236
20	1.6094379	3.55	0.22	0.63	0.2	13. 75	1.724564	0.0029	0.00182	0.000	0.039 875	0.00500 1236
20	1.3217558	3.57	0.22	0.44	0.22	13. 75	1.724564 131	0.0029	0.00127	0.000	0.039 875	0.00500 1236
20 09	0.3715635	3.05	0.36	0.67	0.33	16. 5	0.916290 732	0.0029	0.00194	0.000	0.047	0.00265 7243
20 10	1.2029723 04	2.99	0.37	0.71	0.33	16. 5	0.916290 732	0.0029	0.00205	0.000	0.047	0.00265 7243
20	2.2575877 27	3.07	0.41	0.71	0.33	16. 5	0.916290 732	0.0029	0.00205	0.000	0.047	0.00265 7243
20	1.4539530	3.18	0.45	0.7	0.33	16. 5	0.916290 732	0.0029	0.00203	0.000	0.047	0.00265 7243
20 13	1.8748743 76	3.2	0.38	0.71	0.33	16. 5	0.916290 732	0.0029	0.00205	0.000	0.047 85	0.00265 7243
20	1.8245492 92	3.29	0.42	0.7	0.33	16. 5	0.916290 732	0.0029	0.00203	0.000	0.047	0.00265 7243
20 15	1.6524974 02	3.32	0.38	0.7	0.33	16. 5	0.916290 732	0.0029	0.00203	0.000	0.047 85	0.00265 7243
20	2.1459312 83	1.69	0.36	0.54	0.33	16. 5	2.302585	0.0029	0.00156	0.000	0.047 85	0.00667 7497
20 10	1.1878434 22	1.76	0.37	0.75	0.25	16. 5	2.302585	0.0029	0.00217	0.000 725	0.047 85	0.00667 7497
20	0.9001613 5	1.93	0.34	0.69	0.25	16. 5	2.302585 093	0.0029	0.00200	0.000 725	0.047 85	0.00667 7497
20 12	0.9162907 32	2.2	0.25	0.5	0.25	16. 5	2.302585 093	0.0029	0.00145	0.000 725	0.047 85	- 0.00667 7497
20 13	0.8064758 66	2.28	0.22	0.5	0.25	16. 5	2.302585 093	0.0029	0.00145	0.000 725	0.047 85	0.00667 7497
20 14	0.5423242 91	2.5	0.24	0.25	0.25	16. 5	2.302585 093	0.0029	0.00072	0.000 725	0.047 85	- 0.00667 7497
20 15	1.2412685 89	2.16	0.24	0.57	0.25	16. 5	2.302585 093	0.0029	0.00165	0.000 725	0.047 85	- 0.00667 7497
20 09	0.3852624 01	3.07	2.55	0.67	0.17	10	1.203972 804	0.0029	0.00194	0.000 493	0.029	0.00349 1521
20 10	0.1655144 38	3.21	1.69	0.67	0.17	10	1.203972 804	0.0029	0.00194	0.000 493	0.029	0.00349 1521
20 11	1.5040773 97	3.15	3.22	0.67	0.33	10	1.203972 804	0.0029	0.00194	0.000 957	0.029	0.00349 1521
20 12	1.4973884 09	3.23	2.38	0.67	0.33	10	1.203972 804	0.0029	0.00194	0.000 957	0.029	0.00349 1521

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20 13	2.0095554 14	3.36	2.79	0.67	0.33	10	1.203972 804	0.0029	0.00194 3	0.000 957	0.029	0.00349 1521
20 14	1.8671761 09	3.38	3.63	0.67	0.33	10	1.203972 804	0.0029	0.00194	0.000 957	0.029	0.00349 1521
20 15	1.4492691 6	3.45	3.99	0.67	0.33	10	1.203972 804	0.0029	0.00194	0.000 957	0.029	0.00349 1521
20 09	1.8885836 54	3.58	0.23	0.67	0.5	14. 16	2.302585 093	0.0029	0.00194	0.001 45	0.041 064	- 0.00667 7497
20 10	1.8885836 54	3.83	0.31	0.67	0.44	10. 28	1.514127 733	0.0029	0.00194	0.001 276	0.029 812	0.00439 097
20 11	1.8885836 54	3.9	0.29	0.6	0.4	14. 62	1.609437 912	0.0029	0.00174	0.001	0.042 398	0.00466 737
20 12	1.3244189 57	3.96	0.28	0.6	0.4	13. 77	1.609437 912	0.0029	0.00174	0.001 16	0.039 933	0.00466 737
20 13	1.8931119 63	3.98	0.29	0.6	0.5	13. 77	1.609437 912	0.0029	0.00174	0.001 45	0.039 933	0.00466 737
20 14	1.9242486 52	3.95	0.28	0.63	0.5	10. 37	1.714798 428	0.0029	0.00182	0.001 45	0.030 073	0.00497 2915
20 15	1.3812818 19	3.96	0.3	0.63	0.5	11. 58	1.386294 361	0.0029	0.00182 7	0.001 45	0.033 582	0.00402 0254
20 09	0.3856624 81	3.57	0.2	0.63	0.33	15. 32	1.966112 856	0.0029	0.00182	0.000 957	0.044 428	0.00570 1727
20 10	0.1392620 67	3.55	0.3	0.63	0.33	15. 32	1.966112 856	0.0029	0.00182	0.000 957	0.044 428	0.00570 1727
20 11	2.1412419 43	3.59	0.25	0.63	0.33	15. 32	1.966112 856	0.0029	0.00182 7	0.000 957	0.044 428	0.00570 1727
20 12	1.0402767 12	3.73	0.25	0.63	0.33	15. 32	1.966112 856	0.0029	0.00182 7	0.000 957	0.044 428	0.00570 1727
20 13	1.9110228 9	3.78	0.25	0.63	0.33	15. 32	1.966112 856	0.0029	0.00182 7	0.000 957	0.044 428	0.00570 1727
20 14	1.1817271 95	3.86	0.16	0.63	0.33	15. 32	1.966112 856	0.0029	0.00182 7	0.000 957	0.044 428	0.00570 1727
20 15	1.3402504 23	3.7	0.16	0.63	0.33	15. 32	1.966112 856	0.0029	0.00182 7	0.000 957	0.044 428	0.00570 1727
20 09	1.2640278 93	3.31	0.57	0.77	0.29	11. 29	1.724564 131	0	0	0	0	-0
20 10	1.2640278 93	3.44	0.59	0.77	0.29	11. 29	1.724564 131	0	0	0	0	-0
20 11	1.2640278 93	3.51	0.59	0.77	0.29	11. 29	1.724564 131	0	0	0	0	-0
20 12	1.2640278 93	3.59	0.6	0.78	0.29	11. 29	1.724564 131	0	0	0	0	-0
20 13	1.2640278 93	3.75	0.65	0.75	0.29	11. 29	1.724564 131	0	0	0	0	-0
20 14	1.2640278 93	3.76	0.62	0.77	0.29	11. 29	1.724564 131	0	0	0	0	-0
20 15	1.2640278 93	3.84	0.64	0.77	0.29	11. 29	1.724564 131	0	0	0	0	-0
20 09	1.2640278 93	3.1	0.63	0.18	0.29	15. 61	1.386294 361	0	0	0	0	-0
20 10	1.2640278 93	3.08	0.8	0.44	0.29	15. 61	1.386294 361	0	0	0	0	-0
20 11	1.2640278 93	3.16	0.67	0.5	0.29	15. 61	1.386294 361	0	0	0	0	-0
20 12	1.2640278 93	3.05	0.88	0.56	0.29	15. 61	1.386294 361	0	0	0	0	-0

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20 13	1.2640278 93	3.03	0.63	0.44	0.29	15. 61	1.386294 361	0	0	0	0	-0
20 14	1.2640278 93	2.75	0.31	0.29	0.29	15. 61	1.386294 361	0	0	0	0	-0
20 15	1.2640278 93	2.71	0.55	0.56	0.29	15. 61	1.386294 361	0	0	0	0	-0
20 09	2.4336133 55	3.5	0.42	0.55	0.43	15. 32	1.078809 661	0	0	0	0	-0
20 10	2.4336133 55	3.49	0.45	0.55	0.57	15. 32	1.078809 661	0	0	0	0	-0
20 11	2.4336133 55	3.48	0.24	0.55	0.57	15. 32	1.078809 661	0	0	0	0	-0
20 12	2.4336133 55	3.49	0.24	0.33	0.57	15. 32	1.078809	0	0	0	0	-0
20	1.5151272	3.49	0.28	0.29	0.57	15. 32	1.078809	0	0	0	0	-0
20	1.7950872 59	3.53	0.32	0.46	0.63	15. 32	1.078809	0	0	0	0	-0
20	1.2974631	3.56	0.27	0.5	0.63	15. 32	1.078809	0	0	0	0	-0
20	1.2640278	5.2	0.11	0.1	0.78	7.2	1.108662 625	0	0	0	0	-0
20	1.2640278	5.23	0.12	0.1	0.8	7.4	1.108662 625	0	0	0	0	-0
20	1.2640278 93	5.22	0.15	0.1	0.8	7.4	1.203972 804	0	0	0	0	-0
20 12	1.2640278 93	5.23	0.18	0.1	0.78	7.4 7	1.514127 733	0	0	0	0	-0
20 13	1.2640278 93	5.22	0.16	0.09	0.64	7.4 7	1.309333 32	0	0	0	0	-0
20 14	1.2640278 93	5.27	0.16	0.1	0.8	7.4 7	1.309333 32	0	0	0	0	-0
20 15	1.2640278 93	5.23	0.15	0.1	0.77	7.4 7	1.237874 356	0	0	0	0	-0
20 09	0.7985076 96	4.64	0.14	0.3	0.3	11. 22	2.040220 829	0	0	0	0	-0
20 10	0.7550225 84	5.05	0.17	0.25	0.29	11. 22	2.040220 829	0.0029	0.00072	0.000 841	0.032 538	0.00591 664
20 11	0.7550225 84	5.11	0.16	0.25	0.38	12. 88	2.040220 829	0.0029	0.00072	0.001 102	0.037 352	0.00591 664
20 12	0.0676586 48	5.15	0.18	0.25	0.3	11. 64	2.040220 829	0.0029	0.00072	0.000 87	0.033 756	0.00591 664
20 13	0.0676586 48	5.18	0.13	0.18	0.29	10	1.309333 32	0.0029	0.00052	0.000 841	0.029	0.00379 7067
20 14	0.5538851 13	5.16	0.81	0.18	0.38	10	1.832581 464	0.0029	0.00052 2	0.001 102	0.029	0.00531 4486
20 15	0.4780358 01	5.26	0.82	0.25	0.32	10	1.108662 625	0.0029	0.00072 5	0.000 928	0.029	0.00321 5122
20 09	0.6931471 81	4.56	0.85	0.45	0.7	16. 29	2.302585 093	0.0029	0.00130 5	0.002	0.047 241	0.00667 7497
20 10	0.6931471 81	4.75	0.87	0.4	0.7	17. 45	2.302585 093	0.0029	0.00116	0.002 03	0.050 605	0.00667 7497
20 11	0.7884573 6	4.82	0.88	0.5	0.82	17. 45	2.302585 093	0.0029	0.00145	0.002 378	0.050 605	0.00667 7497
20 12	0.1823215 57	4.92	0.88	0.46	0.73	17. 45	2.407945 609	0.0029	0.00133	0.002 117	0.050 605	0.00698 3042

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20 13	0.6418538 86	5.03	0.88	0.45	0.73	17. 45	2.407945 609	0.0029	0.00130 5	0.002 117	0.050 605	0.00698 3042
20 14	0.5306282 51	5.13	0.86	0.5	0.73	15. 09	2.407945 609	0.0029	0.00145	0.002 117	0.043 761	0.00698 3042
20 15	0.6043159 67	5.22	0.86	0.27	0.73	13. 71	1.714798 428	0.0029	0.00078	0.002 117	0.039 759	0.00497 2915
20 09	0.4054651 08	4.72	0.72	0.25	0.91	7.5 2	2.525728 644	0.0029	0.00072 5	0.002 639	0.021 808	0.00732 4613
20 10	0.5306282 51	4.9	0.75	0.25	0.85	17. 07	2.525728 644	0.0029	0.00072 5	0.002 465	0.049 503	0.00732 4613
20 11	1.0260415 96	5	0.77	0.27	0.82	17. 07	1.714798 428	0.0029	0.00078	0.002 378	0.049 503	0.00497 2915
20 12	1.0952733 87	5.16	0.81	0.33	0.75	16. 51	1.771956 842	0.0029	0.00095	0.002 175	0.047 879	0.00513 8675
20 13	1.5851452 2	5.29	0.83	0.64	0.82	14. 14	1.714798 428	0.0029	0.00185	0.002 378	0.041	0.00497 2915
20	1.8702625 31	5.16	0.82	0.5	0.82	12. 25	1.966112 856	0	0	0	0	-0
20	1.2208299	5.44	0.81	0.52	0.78	11. 48	1.347073 648	0	0	0	0	-0
20 09	0.6931471	4.02	0.86	0.09	0.67	16. 96	1.108662 625	0.0029	0.00026	0.001	0.049	0.00321 5122
20	0.6931471	4.16	0.74	0.17	0.67	16. 96	2.207274 913	0.0029	0.00049	0.001	0.049	0.00640 1097
20	1.0986122	4.26	0.74	0.17	0.67	16. 96	2.207274 913	0.0029	0.00029	0.001	0.049	0.00640 1097
20	1.0986122					16.	2.207274		0.00040	0.001	0.049	0.00640
20	2.3025850	4.47	0.85	0.14	0.5	96 16.	2.207274	0.0029	0.00037	0.001	0.049	0.00640
20	93 2.1972245	4.5	0.85	0.13	0.5	96 15.	913 - 2.207274	0.0029	7	45	184	1097
14	1 5749464	4.67	0.87	0.13	0.5	68	913	0	0 00027	0 001	0 045	-0
20 15	1.5748464 68	4.68	0.88	0.13	0.44	15. 68	2.040220 829	0.0029	0.00037 7	0.001 276	0.045 472	0.00591 664
20 09	1.9444805 56	5.08	0.89	0.09	0.91	5.7 9	1.309333 32	0.0029	0.00026 1	0.002 639	0.016 791	0.00379 7067
20 10	1.4586150 23	5.28	0.89	0.09	0.82	9.4 6	1.714798 428	0.0029	0.00026 1	0.002 378	0.027 434	0.00497 2915
20 11	1.5686159 18	5.29	0.88	0.09	0.73	8.7	1.108662 625	0.0029	0.00026 1	0.002 117	0.025 23	0.00321 5122
20 12	1.7578579 18	5.4	0.84	0.09	0.67	9.4 6	1.386294 361	0.0029	0.00026 1	0.001 943	0.027 434	0.00402 0254
20 13	2.4336133 55	5.52	0.87	0.09	0.73	6.9 1	1.714798 428	0.0029	0.00026 1	0.002 117	0.020 039	0.00497 2915
20 14	1.8562979 9	5.57	0.85	0.09	0.64	6.9 1	2.207274 913	0.0029	0.00026 1	0.001 856	0.020 039	0.00640 1097
20 15	2.2257040 49	5.59	0.84	0.08	0.67	4.1	1.771956 842	0.0029	0.00023	0.001 943	0.012 035	0.00513 8675
20 09	0.4382549 31	4.62	0.88	0.16	0.55	18. 99	2.525728 644	0	0	0	0	-0
20 10	0.4382549 31	4.63	0.85	0.16	0.55	13. 87	2.525728 644	0	0	0	0	-0
20 11	0.4382549 31	4.71	0.85	0.16	0.55	12. 47	2.407945 609	0	0	0	0	-0
20 12	0.4382549 31	4.78	0.83	0.55	0.55	14. 94	2.407945 609	0	0	0	0	-0

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20 13	0.6830968 45	4.84	0.85	0.98	0.64	11. 34	2.407945 609	0	0	0	0	-0
20 14	0.1484200 05	4.83	0.84	0.16	0.73	7.3 5	1.714798 428	0	0	0	0	-0
20 15	0.1133286 85	4.97	0.87	0.16	0.6	6.8	1.609437 912	0	0	0	0	-0
20 09	0.5108256 24	4.5	0.85	0.2	0.5	18. 99	2.302585 093	0	0	0	0	-0
20 10	0.2231435 51	4.63	0.87	0.2	0.5	13. 87	2.302585 093	0	0	0	0	-0
20 11	0.4700036 29	4.68	0.86	0.27	0.64	13. 87	2.302585 093	0	0	0	0	-0
20 12	0.0953101 8	4.77	0.86	0.27	0.64	14. 98	2.407945 609	0	0	0	0	-0
20 13	0.7419373 45	4.9	0.87	0.27	0.64	14. 98	2.407945 609	0	0	0	0	-0
20 14	0.9555114 45	5.03	0.86	0.27	0.73	15. 68	2.525728 644	0	0	0	0	-0
20 15	0.3852624 01	5.08	0.85	0.17	0.67	15. 68	2.525728 644	0	0	0	0	-0
20 09	1.3862943 61	4.96	0.88	0.36	0.58	13. 91	1.386294 361	0	0	0	0	-0
20 10	1.7917594 69	5	0.88	0.33	0.62	13. 91	1.171182 982	0	0	0	0	-0
20 11	1.9459101 49	5.09	0.89	0.3	0.7	12. 47	1.203972 804	0	0	0	0	-0
20 12	1.6094379 12	5.15	0.86	0.36	0.73	14. 38	1.021651 248	0	0	0	0	-0
20 13	1.9459101 49	5.21	0.87	0.36	0.64	12. 46	1.309333 32	0	0	0	0	-0
20 14	1.6094379 12	5.29	0.84	0.36	0.7	9.4 9	1.203972 804	0	0	0	0	-0
20 15	1.7351891 18	5.34	0.84	0.5	0.7	6.8	1.203972 804	0	0	0	0	-0
20 09	0	4.82	0.9	0.34612 2449	0.5	5.2	1.897119 985	0.0029	0.00100 3755	0.001 45	0.015 312	0.00550 1648
20 10	0.1823215 57	4.92	0.84	0.34612 2449	0.44	11. 23	1.897119 985	0.0029	0.00100 3755	0.001 276	0.032 567	0.00550 1648
20 11	0.9932517 73	5.04	0.86	0.34612 2449	0.44	12. 39	1.897119 985	0.0029	0.00100 3755	0.001 276	0.035 931	0.00550 1648
20 12	0.9162907 32	5.19	0.87	0.34612 2449	0.7	12. 39	1.897119 985	0.0029	0.00100 3755	0.002	0.035 931	0.00550 1648
20 13	1.4109869 74	5.23	0.88	0.34612 2449	0.54	11. 79	1.897119 985	0.0029	0.00100 3755	0.001 566	0.034 191	0.00550 1648
20 14	1.3350010 67	5.3	0.85	0.34612 2449	0.62	13. 3	1.897119 985	0.0029	0.00100 3755	0.001 798	0.038 57	0.00550 1648
20 15	0.9360933 59	5.36	0.84	0.34612 2449	0.62	13. 12	1.897119 985	0.0029	0.00100 3755	0.001 798	0.038 048	0.00550 1648
20 09	1.2640278 93	5.92	0.46	0.83	0.2	17. 54	1.724564 131	0.0029	0.00240 7	0.000 58	0.050 866	0.00500 1236
20 10	1.2640278 93	6.12	0.67	0.6	0.2	17. 54	1.724564 131	0.0029	0.00174	0.000 58	0.050 866	0.00500 1236
20 11	1.2640278 93	6.12	0.68	0.6	0.2	17. 54	1.724564 131	0.0029	0.00174	0.000 58	0.050 866	0.00500 1236
20 12	1.2640278 93	6.13	0.71	0.13	0.2	17. 54	1.724564 131	0.0029	0.00037 7	0.000 58	0.050 866	0.00500 1236

20	1.2640278	5.00		0.5		17.	1.724564			0.000	0.050	0.00500
20	93	5.88	0.8	0.5	0.2	13.	1.724564	0.0029	0.00145	0.000	0.039	0.00500
20	93	5.7	0.6	0.53	0.2	13.	1.724564	0.0029	0.00153	0.000	0.039	0.00500
20	0.8501509	5.68	0.59	0.53	0.2	11.	1.897119	0.0029	7	58	701	1236
20	1.2149127	4.89	0.72	0.46	0.64	11.	985 - 1.897119	0	0	0	0	-0
20	1.6213664	4.89	0.66	0.46	0.55	11.	985 - 1.832581	0	0	0	0	-0
20	0.5128236	4.87	0.77	0.45	0.55	68 14.	464 - 1.714798	0	0	0	0	-0
20	1.5368672	4.86	0.73	0.45	0.55	62 16.	428 - 1.771956	0	0	0	0	-0
13	1.7595805	4.9	0.71	0.33	0.55	53	1.386294	0	0	0	0	-0
14	71	4.89	0.7	0.25	0.55	53	361	0	0	0	0	-0
20 15	1.3402504	5.09	0.75	0.36	0.5	16. 53	1.966112 856	0	0	0	0	-0
20 09	1.2864740 26	3.77	0.37	0.33	0.43	12. 66	2.659260 037	0.0029	0.00095 7	0.001 247	0.036 714	0.00771 1854
20 10	1.3402504 23	3.82	0.35	0.5	0.5	13. 87	2.659260 037	0.0029	0.00145	0.001 45	0.040 223	0.00771 1854
20 11	1.5390154 48	3.82	0.28	0.54	0.46	16. 53	2.525728 644	0.0029	0.00156 6	0.001 334	0.047 937	0.00732 4613
20 12	1.5665304 11	3.9	0.32	0.62	0.53	17. 08	1.609437 912	0.0029	0.00179 8	0.001 537	0.049 532	0.00466 737
20 13	1.7422190 24	3.95	0.31	0.41	0.47	14. 64	1.609437 912	0.0029	0.00118 9	0.001 363	0.042 456	0.00466 737
20 14	1.5040773 97	4.03	0.31	0.5	0.5	16	1.386294 361	0.0029	0.00145	0.001 45	0.046 4	0.00402 0254
20 15	1.5085119 94	4.06	0.28	0.5	0.38	14. 04	1.386294 361	0.0029	0.00145	0.001 102	0.040 716	0.00402 0254
20 09	0.6931471 81	3.24	0.66	0.67	0.5	6.1	1.724564 131	0	0	0	0	-0
20 10	1.0986122 89	3.58	0.45	0.5	0.63	6.9 4	1.724564 131	0	0	0	0	-0
20 11	0.6931471 81	3.59	0.4	0.63	0.63	7.5	1.724564 131	0	0	0	0	-0
20 12	0	3.9	0.55	0.63	0.75	14	1.724564 131	0	0	0	0	-0
20 13	0.6931471 81	3.93	0.49	0.63	0.75	14. 33	1.724564 131	0	0	0	0	-0
20 14	0	3.58	0.43	0.63	0.66	15	1.724564 131	0	0	0	0	-0
20 15	0.6043159 67	4.05	0.36	0.63	0.71	14. 39	1.724564 131	0	0	0	0	-0
20 09	0.5877866 65	3.34	0.66	0.14	0.63	6.1	1.386294 361	0	0	0	0	-0
20 10	0.7884573 6	3.43	0.63	0.12	0.63	6.9 4	1.386294 361	0	0	0	0	-0
20 11	0.2776317 37	3.48	0.58	0.11	0.63	6.9 4	1.386294 361	0	0	0	0	-0
20 12	0.0953101 8	3.52	0.54	0.11	0.75	7.3 2	1.514127 733	0	0	0	0	-0

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20 13	0.0953101 8	3.55	0.53	0.13	0.75	8.0	1.386294 361	0	0	0	0	-0
20 14	0.0953101 8	3.54	0.47	0.13	0.71	17. 46	1.386294 361	0	0	0	0	-0
20 15	0.0676586 48	3.48	0.46	0.13	0.68	7.7 5	1.386294 361	0	0	0	0	-0
20 09	0.8458682 68	3.83	0.46	0.34612 2449	0.92	12. 51	2.525728 644	0	0	0	0	-0
20 10	0.8671004 88	3.81	0.42	0.34612 2449	0.92	12. 51	2.525728 644	0	0	0	0	-0
20 11	1.0224509 28	3.84	0.42	0.34612 2449	0.92	13. 04	2.525728 644	0	0	0	0	-0
20 12	0.5988365 01	4.08	0.37	0.34612 2449	0.92	13. 45	2.525728 644	0	0	0	0	-0
20 13	0.8586616 19	4.12	0.39	0.34612 2449	0.91	14. 63	2.525728 644	0	0	0	0	-0
20	1.1786549 96	4.13	0.39	0.34612 2449	0.91	14. 63	2.525728 644	0	0	0	0	-0
20	0.9122827	4.21	0.35	0.34612 2449	0.92	15. 83	2.407945	0	0	0	0	-0
20 09	0.7080357	3.65	0.61	0.27	0.4	7.3	1.724564 131	0	0	0	0	-0
20	0.3220834	3.8	0.67	0.3	0.4	7.3	1.724564 131	0	0	0	0	-0
20	0.3001045 92	4.08	0.66	0.38	0.5	11. 58	1.724564 131	0	0	0	0	-0
20	0.0408219	4.22	0.7	0.5	0.55	12. 26	1.724564 131	0	0	0	0	-0
20	0.2390169	4.31	0.7	0.5	0.67	11. 17	1.724564 131	0	0	0	0	-0
20	0.1133286 85	4.43	0.74	0.5	0.7	13. 45	2.302585	0	0	0	0	-0
20	1.8099267 73	4.47	0.72	0.5	0.9	13. 45	2.302585 093	0	0	0	0	-0
20 09	1.0986122	4.32	1.12	0.27	0.55	16. 96	1.714798 428	0	0	0	0	-0
20 10	1.3862943	4.45	0.41	0.31	0.64	16. 24	1.897119 985	0	0	0	0	-0
20	1.9459101	4.41	0.35	0.31	0.73	18. 76	1.897119 985	0	0	0	0	-0
20	1.6094379 12	4.52	0.35	0.27	0.73	17. 48	1.714798 428	0	0	0	0	-0
20	2.0794415	4.53	0.35	0.3	0.5	15. 29	1.609437 912	0	0	0	0	-0
20	1.7917594 69	4.63	0.41	0.55	0.5	14. 97	1.309333	0	0	0	0	-0
20	1.7047480	4.63	0.16	0.38	0.46	14. 53	1.469675 97	0	0	0	0	-0
20 09	1.0986122	3.18	0.47	0.34612 2449	0.2	8.2	1.966112 856	0.0029	0.00100 3755	0.000	0.023 838	0.00570 1727
20 10	1.6094379 12	3.29	0.58	0.34612 2449	0.2	8.2	1.966112 856	0.0029	0.00100 3755	0.000	0.023 838	0.00570 1727
20	2.7080502 01	3.27	0.55	0.34612 2449	0.2	8.2	1.966112 856	0.0029	0.00100 3755	0.000	0.023 838	0.00570
20	2.3978952 73	3.29	0.54	0.34612 2449	0.2	8.2	1.966112 856	0.0029	0.00100 3755	0.000	0.023 838	0.00570

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20 13	3.2958368 66	3.35	0.52	0.34612 2449	0.2	8.2 2	1.966112 856	0.0029	0.00100 3755	0.000 58	0.023 838	0.00570 1727
20 14	2.5649493 57	3.35	0.48	0.34612 2449	0.2	16. 36	1.966112 856	0.0029	0.00100 3755	0.000 58	0.047 444	0.00570 1727
20 15	2.5120353 17	3.47	0.54	0.34612 2449	0.2	16. 36	1.966112 856	0.0029	0.00100 3755	0.000 58	0.047 444	0.00570 1727
20 09	1.2864740 26	3.51	0.66	0.29	0.71	8.0	1.966112 856	0.0029	0.00084 1	0.002 059	0.023 258	0.00570 1727
20 10	1.3376291 89	3.48	0.55	0.29	0.71	16. 8	1.966112 856	0.0029	0.00084	0.002 059	0.048 72	0.00570 1727
20 11	1.5973653 31	3.55	0.53	0.29	0.55	13. 36	1.966112 856	0.0029	0.00084	0.001 595	0.038 744	0.00570 1727
20 12	1.8164520 82	3.65	0.5	0.29	0.57	17. 32	1.966112 856	0.0029	0.00084	0.001 653	0.050 228	0.00570 1727
20 13	1.5560371 36	3.7	0.54	0.29	0.43	17. 32	1.966112 856	0.0029	0.00084	0.001 247	0.050 228	0.00570 1727
20 14	2.1459312 83	3.8	0.53	0.29	0.43	17. 32	1.966112 856	0.0029	0.00084	0.001 247	0.050 228	0.00570 1727
20 15	1.6677068 21	3.83	0.55	0.29	0.43	14. 39	1.966112 856	0.0029	0.00084	0.001 247	0.041 731	0.00570 1727
20 09	1.2640278 93	3.95	0.6	0.11	0.33	12. 91	2.207274 913	0.0029	0.00031 9	0.000 957	0.037 439	0.00640 1097
20 10	1.2640278 93	3.96	0.56	0.11	0.33	5	2.207274 913	0.0029	0.00031	0.000 957	0.014 5	0.00640 1097
20 11	1.2640278 93	4.08	0.49	0.11	0.44	6.6 1	2.207274 913	0.0029	0.00031 9	0.001 276	0.019 169	0.00640 1097
20 12	1.2640278 93	4.08	0.53	0.11	0.44	6.6 1	2.207274 913	0.0029	0.00031 9	0.001 276	0.019 169	0.00640 1097
20 13	1.2640278 93	4.13	0.58	0.11	0.44	10. 24	2.207274 913	0.0029	0.00031 9	0.001 276	0.029 696	0.00640 1097
20 14	1.2640278 93	4.15	0.66	0.13	0.44	8.8 4	2.207274 913	0.0029	0.00037 7	0.001 276	0.025 636	0.00640 1097
20 15	1.2640278 93	4.21	0.56	0.13	0.38	8.3	2.040220 829	0.0029	0.00037 7	0.001 102	0.024 157	0.00591 664
20 09	1.1631508 1	5.01	0.36	0.34612 2449	0.43	9.8 8	1.309333 32	0.0029	0.00100 3755	0.001 247	0.028 652	0.00379 7067
20 10	1.3001916 62	5.03	0.36	0.34612 2449	0.33	9.8 8	1.309333 32	0.0029	0.00100 3755	0.000 957	0.028 652	0.00379 7067
20 11	1.2354714 71	5.04	0.42	0.34612 2449	0.42	11. 68	1.386294 361	0.0029	0.00100 3755	0.001 218	0.033 872	0.00402 0254
20 12	1.0715836 16	5.16	0.53	0.34612 2449	0.58	11. 68	1.386294 361	0.0029	0.00100 3755	0.001 682	0.033 872	0.00402 0254
20 13	1.3056264 58	5.21	0.57	0.34612 2449	0.58	11. 68	1.386294 361	0.0029	0.00100 3755	0.001 682	0.033 872	0.00402 0254
20 14	1.9430489 17	5.21	0.57	0.34612 2449	0.58	12. 79	1.386294 361	0.0029	0.00100 3755	0.001 682	0.037 091	0.00402 0254
20 15	1.3812818 19	5.28	0.61	0.34612 2449	0.58	14. 38	1.386294 361	0.0029	0.00100 3755	0.001 682	0.041 702	0.00402 0254
20 09	1.4350845 25	4.12	0.62	0.67	0.71	5.6 7	1.514127 733	0.0029	0.00194	0.002 059	0.016 443	0.00439 097
20 10	1.6677068 21	4.44	0.61	0.67	0.71	5.6 7	1.514127 733	0.0029	0.00194	0.002 059	0.016 443	0.00439 097
20 11	1.8718021 77	4.5	0.67	0.63	0.71	5.6 7	1.386294 361	0.0029	0.00182 7	0.002 059	0.016 443	0.00402 0254
20 12	1.6486586 26	4.51	0.63	0.63	0.71	5.6 7	1.386294 361	0.0029	0.00182 7	0.002 059	0.016 443	0.00402 0254

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20 13	1.4632554 02	4.66	0.75	0.63	0.71	5.3	1.386294 361	0.0029	0.00182 7	0.002 059	0.015 37	0.00402 0254
20 14	1.6014057 41	4.51	0.8	0.5	0.71	5.3	1.386294 361	0.0029	0.00145	0.002 059	0.015 37	0.00402 0254
20 15	1.4469189 83	4.45	0.76	0.62	0.71	5.3	1.386294 361	0.0029	0.00179 8	0.002 059	0.015 37	0.00402 0254
20 09	1.2640278 93	4.68	0.53	0.09	0.38	11. 89	1.714798 428	0.0029	0.00026	0.001 102	0.034 481	0.00497 2915
20 10	1.2640278 93	4.78	0.6	0.09	0.5	13. 87	1.714798 428	0.0029	0.00026	0.001 45	0.040 223	0.00497 2915
20 11	1.2640278 93	4.85	0.62	0.09	0.45	13. 87	1.714798 428	0.0029	0.00026	0.001 305	0.040 223	0.00497 2915
20 12	1.2640278 93	4.93	0.66	0.09	0.73	12. 9	1.714798 428	0.0029	0.00026 1	0.002 117	0.037 41	0.00497 2915
20 13	1.2640278 93	5.08	0.67	0.09	0.64	14. 63	1.714798 428	0.0029	0.00026	0.001 856	0.042 427	0.00497 2915
20 14	1.2640278 93	5.13	0.68	0.09	0.6	14. 63	1.714798 428	0.0029	0.00026 1	0.001 74	0.042 427	0.00497 2915
20 15	1.2640278 93	5.25	0.64	0.09	0.64	11. 24	1.021651 248	0.0029	0.00026 1	0.001 856	0.032 596	0.00296 2789
20 09	1.2640278 93	4.1	0.62	0.67	0.5	18. 89	0.843970 07	0.0029	0.00194	0.001 45	0.054 781	0.00244 7513
20 10	1.2640278 93	4.74	0.65	0.67	0.5	18. 35	0.843970 07	0.0029	0.00194	0.001 45	0.053 215	0.00244 7513
20 11	1.2640278 93	4.5	0.72	0.67	0.5	18. 35	0.843970 07	0.0029	0.00194	0.001 45	0.053 215	0.00244 7513
20 12	1.2640278 93	4.48	0.68	0.67	0.5	8.2 2	0.843970 07	0.0029	0.00194	0.001 45	0.023 838	0.00244 7513
20 13	1.2640278 93	4.55	0.74	0.5	0.5	7.7 5	0.843970 07	0.0029	0.00145	0.001 45	0.022 475	0.00244 7513
20 14	1.2640278 93	4.52	0.57	0.67	0.57	7.7 5	0.843970 07	0.0029	0.00194	0.001 653	0.022 475	0.00244 7513
20 15	1.2640278 93	4.6	0.62	0.43	0.71	8.2 2	0.843970 07	0.0029	0.00124 7	0.002 059	0.023 838	0.00244 7513
20 09	0.7929925 16	4.25	0.78	0.44	0.78	14. 58	2.207274 913	0.0029	0.00127 6	0.002 262	0.042 282	0.00640 1097
20 10	1.2412685 89	4.31	0.84	0.44	0.78	14. 58	2.207274 913	0.0029	0.00127 6	0.002 262	0.042 282	0.00640 1097
20 11	1.3635373 74	4.38	0.84	0.44	0.89	14. 58	2.207274 913	0.0029	0.00127 6	0.002 581	0.042 282	0.00640 1097
20 12	1.0952733 87	4.49	0.82	0.44	0.89	14. 58	2.207274 913	0.0029	0.00127 6	0.002 581	0.042 282	0.00640 1097
20 13	1.2669476 03	4.58	0.82	0.44	0.89	13. 36	2.207274 913	0.0029	0.00127 6	0.002 581	0.038 744	0.00640 1097
20 14	1.4929040 96	4.68	0.82	0.44	0.89	13. 36	2.207274 913	0.0029	0.00127 6	0.002 581	0.038 744	0.00640 1097
20 15	1.2325602 61	4.79	0.81	0.44	0.89	13. 36	2.207274 913	0.0029	0.00127 6	0.002 581	0.038 744	0.00640 1097
20 09	1.2612978 71	4.11	0.51	0.34612 2449	0.67	6.7 8	0.916290 732	0.0029	0.00100 3755	0.001 943	0.019 662	0.00265 7243
20 10	1.3660916 54	4.14	0.41	0.34612 2449	0.67	6.7 8	0.916290 732	0.0029	0.00100 3755	0.001 943	0.019 662	0.00265 7243
20 11	1.4516138 27	4.18	0.39	0.34612 2449	0.67	13. 05	0.916290 732	0.0029	0.00100 3755	0.001 943	0.037 845	0.00265 7243
20 12	1.1537315 88	4.24	0.39	0.34612 2449	0.67	13. 05	0.916290 732	0.0029	0.00100 3755	0.001 943	0.037 845	0.00265 7243

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20 13	1.5665304 11	4.28	0.4	0.34612 2449	0.82	10. 11	1.714798 428	0.0029	0.00100 3755	0.002 378	0.029 319	0.00497 2915
20 14	1.3190856 11	4.38	0.39	0.34612 2449	0.82	7.7 2	1.386294 361	0.0029	0.00100 3755	0.002 378	0.022 388	0.00402 0254
20 15	1.3609765 53	4.45	0.36	0.34612 2449	0.82	7.8 3	1.386294 361	0.0029	0.00100 3755	0.002 378	0.022 707	0.00402 0254
20 09	1.3862943 61	3.77	0.51	0.86	0.71	14. 39	1.966112 856	0.0029	0.00249 4	0.002 059	0.041 731	0.00570 1727
20 10	1.3862943 61	3.79	0.81	0.57	0.57	13. 36	1.966112 856	0.0029	0.00165	0.001 653	0.038 744	0.00570 1727
20 11	1.3862943 61	3.88	0.83	0.56	0.67	13. 36	1.514127 733	0.0029	0.00162 4	0.001 943	0.038 744	0.00439 097
20 12	1.6094379 12	4.03	0.83	0.56	0.67	20	1.514127 733	0.0029	0.00162 4	0.001 943	0.058	0.00439 097
20 13	2.3025850 93	4.06	0.82	0.56	0.67	20	1.514127 733	0.0029	0.00162 4	0.001 943	0.058	0.00439 097
20 14	2.0794415 42	4.22	0.84	0.56	0.67	16. 2	1.514127 733	0.0029	0.00162 4	0.001 943	0.046 98	0.00439 097
20 15	1.5040773 97	4.33	0.36	0.61	0.67	16. 2	1.514127 733	0.0029	0.00176 9	0.001 943	0.046 98	0.00439 097
20 09	0.1823215 57	3.93	0.01	0.11	0.78	7.5	2.207274 913	0.0029	0.00031 9	0.002 262	0.021 75	0.00640 1097
20 10	0.5877866 65	3.91	0.01	0.11	0.56	16. 58	2.207274 913	0.0029	0.00031	0.001 624	0.048 082	0.00640 1097
20 11	0.1570037 49	3.82	0.08	0.11	0.89	17. 53	1.514127 733	0.0029	0.00031	0.002 581	0.050 837	0.00439 097
20 12	0.1570037 49	3.92	0.05	0.11	0.63	21. 68	2.207274 913	0.0029	0.00031 9	0.001 827	0.062 872	0.00640 1097
20 13	0.1570037 49	4.09	0.22	0.11	0.78	20. 34	2.207274 913	0.0029	0.00031 9	0.002 262	0.058 986	0.00640 1097
20 14	0.1570037 49	4.06	0.13	0.11	0.89	20. 34	2.207274 913	0.0029	0.00031 9	0.002 581	0.058 986	0.00640 1097
20 15	0.6931471 81	4.33	0.28	0.11	0.76	20. 34	2.207274 913	0.0029	0.00031	0.002 204	0.058 986	0.00640 1097
20 09	0.8960880 25	2.97	0.75	0.2	0.2	12. 94	1.966112 856	0	0	0	0	-0
20 10	0.8960880 25	3.04	0.38	0.2	0.2	12. 94	1.966112 856	0	0	0	0	-0
20 11	0.8960880 25	2.9	0.29	0.2	0.2	12. 94	1.966112 856	0	0	0	0	-0
20 12	0.8960880 25	2.99	0.44	0.2	0.2	12. 94	1.966112 856	0	0	0	0	-0
20 13	0.8960880 25	3.03	0.35	0.2	0.2	12. 94	1.966112 856	0	0	0	0	-0
20 14	0.9400072 58	3.21	0.19	0.2	0.2	14. 58	1.966112 856	0	0	0	0	-0
20 15	0.8501509 29	3.03	0.4	0.2	0.2	14. 58	1.966112 856	0	0	0	0	-0
20 09	0.1570037 49	4.2	0.59	0.15	0.33	14. 58	2.525728 644	0.0029	0.00043 5	0.000 957	0.042 282	0.00732 4613
20 10	0.1570037 49	3.91	0.62	0.15	0.33	14. 58	2.525728 644	0.0029	0.00043 5	0.000 957	0.042 282	0.00732 4613
20 11	0.1570037 49	3.94	0.6	0.15	0.33	14. 58	2.207274 913	0.0029	0.00043	0.000 957	0.042 282	0.00640 1097
20 12	0.1570037 49	4.05	0.53	0.15	0.33	14. 58	2.207274 913	0.0029	0.00043 5	0.000 957	0.042 282	0.00640 1097

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20 13	0	4.35	0.7	0.15	0.33	15. 83	1.514127 733	0.0029	0.00043 5	0.000 957	0.045 907	0.00439 097
20 14	0.6931471 81	4.34	0.66	0.15	0.33	15. 83	1.514127 733	0.0029	0.00043 5	0.000 957	0.045 907	0.00439 097
20 15	0.6931471 81	4.38	0.45	0.15	0.33	15. 83	1.514127 733	0.0029	0.00043 5	0.000 957	0.045 907	0.00439 097
20 09	1.3862943 61	3.27	0.25	0.44	0.45	12. 91	1.514127 733	0.0029	0.00127 6	0.001 305	0.037 439	0.00439 097
20 10	1.3862943 61	3.31	0.29	0.3	0.4	12. 91	2.302585 093	0.0029	0.00087	0.001 16	0.037 439	0.00667 7497
20 11	1.6094379 12	3.3	0.23	0.44	0.44	12. 91	1.514127 733	0.0029	0.00127 6	0.001 276	0.037 439	0.00439 097
20 12	1.9459101 49	3.28	0.25	0.56	0.44	12. 91	1.514127 733	0.0029	0.00162 4	0.001 276	0.037 439	0.00439 097
20 13	1.9459101 49	3.26	0.27	0.25	0.5	12. 91	1.386294 361	0.0029	0.00072 5	0.001 45	0.037 439	0.00402 0254
20 14	1.6094379 12	3.3	0.27	0.44	0.44	12. 91	1.108662 625	0.0029	0.00127 6	0.001 276	0.037 439	0.00321 5122
20 15	1.6733512 38	3.42	0.21	0.5	0.5	12. 91	0.693147 181	0.0029	0.00145	0.001 45	0.037 439	0.00201 0127
20 09	2.1860512 77	3.97	0.54	0.46	0.46	15. 62	1.897119 985	0	0	0	0	-0
20 10	2.5649493 57	4.01	0.53	0.33	0.46	15. 83	2.525728 644	0	0	0	0	-0
20 11	2.1162555 15	4.02	0.56	0.36	0.45	16. 6	2.407945 609	0	0	0	0	-0
20 12	1.8718021 77	4.05	0.54	0.36	0.45	15. 71	1.469675 97	0	0	0	0	-0
20 13	2.5176964 73	4.14	0.53	0.2	0.5	18. 27	1.203972 804	0	0	0	0	-0
20 14	1.8870696 49	4.18	0.53	0.27	0.45	15. 71	1.714798 428	0	0	0	0	-0
20 15	2.2278615 47	4.07	0.55	0.33	0.46	12. 37	1.771956 842	0	0	0	0	-0
20 09	1.8245492 92	3.04	0.15	0.2	0.25	12. 5	1.724564 131	0.0029	0.00058	0.000 725	0.036 25	0.00500 1236
20 10	1.9878743 48	3.08	0.15	0.2	0.25	12. 5	1.724564 131	0.0029	0.00058	0.000 725	0.036 25	0.00500 1236
20 11	2.6782780 43	3.14	0.15	0.2	0.25	12. 5	1.724564 131	0.0029	0.00058	0.000 725	0.036 25	0.00500 1236
20 12	1.1662709 37	3.18	0.14	0.2	0.25	12. 5	1.724564 131	0.0029	0.00058	0.000 725	0.036 25	0.00500 1236
20 13	1.6974487 9	3.24	0.16	0.2	0.25	12. 5	1.724564 131	0.0029	0.00058	0.000 725	0.036 25	0.00500 1236
20 14	1.5686159 18	3.3	0.18	0.2	0.25	12. 5	1.724564 131	0.0029	0.00058	0.000 725	0.036 25	0.00500 1236
20 15	1.9344157 7	3.34	0.13	0.2	0.25	12. 5	1.724564 131	0.0029	0.00058	0.000 725	0.036 25	0.00500 1236
20 09	1.0986122 89	4.49	0.33	0.36	0.33	17. 07	1.714798 428	0	0	0	0	-0
20 10	1.3862943 61	4.52	0.34	0.25	0.33	17. 52	1.771956 842	0	0	0	0	-0
20 11	1.6094379 12	4.55	0.35	0.25	0.42	17. 85	1.771956 842	0	0	0	0	-0
20 12	1.6094379 12	4.58	0.38	0.33	0.42	19. 24	1.386294 361	0	0	0	0	-0

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20 13	1.6094379 12	4.7	0.46	0.42	0.42	18. 69	1.386294 361	0	0	0	0	-0
20 14	1.3862943 61	4.74	0.84	0.58	0.42	14. 97	0.867500 568	0	0	0	0	-0
20 15	1.4655675 42	4.77	0.84	0.5	0.42	13. 22	0.693147 181	0	0	0	0	-0
20 09	1.2640278 93	3.08	0.63	0.44	0.38	7.9 1	1.514127 733	0.0029	0.00127 6	0.001 102	0.022 939	0.00439 097
20 10	1.2640278 93	2.92	0.56	0.4	0.38	7.5	1.139434 283	0.0029	0.00116	0.001 102	0.021 75	0.00330 4359
20 11	1.2640278 93	3	0.6	0.5	0.38	13. 36	1.386294 361	0.0029	0.00145	0.001 102	0.038 744	0.00402 0254
20 12	1.2640278 93	3.16	0.66	0.5	0.38	14	1.386294 361	0.0029	0.00145	0.001 102	0.040 6	0.00402 0254
20 13	1.2640278 93	3.11	0.73	0.43	0.57	15	1.237874 356	0.0029	0.00124 7	0.001 653	0.043	0.00358 9836
20 14	1.2640278 93	3.15	0.7	0.43	0.63	13. 36	0.843970 07	0.0029	0.00124 7	0.001 827	0.038 744	0.00244 7513
20 15	1.2640278 93	2.97	0.58	0.13	0.63	7.7 6	0.693147 181	0.0029	0.00037 7	0.001 827	0.022 504	0.00201 0127
20 09	0.7514160 89	4.08	0.3	0.25	0.54	6.5	2.525728 644	0.0029	0.00072 5	0.001 566	0.019 082	0.00732 4613
20 10	1.1474024 53	4.15	0.36	0.25	0.54	4.1 6	2.525728 644	0.0029	0.00072 5	0.001 566	0.012 064	0.00732 4613
20 11	1.8976198 6	4.24	0.43	0.25	0.54	6.3	1.897119 985	0.0029	0.00072 5	0.001 566	0.018 531	0.00550 1648
20 12	1.1346227 26	4.26	0.41	0.25	0.54	5.6	1.897119 985	0.0029	0.00072 5	0.001 566	0.016 327	0.00550 1648
20 13	1.9444805 56	4.37	0.38	0.25	0.54	8.7 5	1.897119 985	0.0029	0.00072 5	0.001 566	0.025 375	0.00550 1648
20 14	2.1041341 54	4.44	0.43	0.25	0.67	14	1.897119 985	0.0029	0.00072 5	0.001 943	0.040 6	0.00550 1648
20 15	1.6174060 82	4.43	0.51	0.25	0.58	13. 45	1.386294 361	0.0029	0.00072 5	0.001 682	0.039 005	0.00402 0254
20 09	1.6311994 04	3.57	0.38	0.11	0.33	15. 5	2.207274 913	0.0029	0.00031	0.000 957	0.044 95	0.00640 1097
20 10	1.6311994 04	3.68	0.38	0.11	0.33	15. 5	2.207274 913	0.0029	0.00031	0.000 957	0.044 95	0.00640 1097
20 11	1.6311994 04	3.75	0.43	0.15	0.33	15. 5	1.560647 748	0.0029	0.00043 5	0.000 957	0.044 95	0.00452 5878
20 12	1.4060969 88	3.7	0.34	0.11	0.33	15. 5	2.207274 913	0.0029	0.00031	0.000 957	0.044 95	0.00640 1097
20 13	2.0149030 21	3.76	0.34	0.11	0.33	17. 5	1.514127 733	0.0029	0.00031	0.000 957	0.050 75	0.00439 097
20 14	1.7833912 2	3.81	0.38	0.14	0.29	14. 39	1.237874 356	0.0029	0.00040 6	0.000 841	0.041 731	0.00358 9836
20 15	1.0715836 16	3.92	0.46	0.29	0.43	12. 53	0.843970 07	0.0029	0.00084	0.001 247	0.036 337	0.00244 7513
20 09	0.1165338 16	4.75	0.42	0.29	0.29	13. 36	1.237874 356	0.0029	0.00084	0.000 841	0.038 744	0.00358 9836
20 10	0.3293037 47	4.87	0.43	0.29	0.43	14. 33	1.966112 856	0.0029	0.00084	0.001 247	0.041 557	0.00570 1727
20 11	1.2029723 04	4.96	0.44	0.3	0.4	13. 57	1.609437 912	0.0029	0.00087	0.001 16	0.039 353	0.00466 737
20 12	1.2809338 45	5.02	0.4	0.33	0.33	13. 18	1.108662 625	0.0029	0.00095 7	0.000 957	0.038 222	0.00321 5122

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20	1.6601310					12.	0.843970		0.00124	0.001	0.037	0.00244
13	27	5.09	0.41	0.43	0.43	91	07	0.0029	7	247	439	7513
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20	1.9286186	7.06	0.41	0.55	0.42	16.	1.021651	0.0020	0.00159	0.001	0.046	0.00296
14	52	5.06	0.41	0.55	0.43	03	248	0.0029	5	247	487	2789
20	1.2697605					15.	1.237874		0.00107	0.001	0.044	0.00358
15	45	5.11	0.38	0.37	0.39	42	356	0.0029	3	131	718	9836
	_						-					-
20	0.6931471					8.2	2.040220			0.001	0.023	0.00591
09	81	3.01	0.19	0.5	0.38	2	829	0.0029	0.00145	102	838	664
							-					-
20	0.6931471	2.10	0.22	0.5	0.20	8.2	2.040220	0.0020	0.00145	0.001	0.023	0.00591
10	81	3.18	0.33	0.5	0.38	2	829	0.0029	0.00145	102	838	664
20	0.6931471					8.2	2.040220			0.001	0.023	0.00591
11	81	3.37	0.5	0.5	0.4	2	829	0.0029	0.00145	16	838	664
							-	***************************************	0.000			-
20	1.1085626					8.2	2.040220			0.001	0.023	0.00591
12	2	3.44	0.62	0.5	0.63	2	829	0.0029	0.00145	827	838	664
							-					-
20	1.1085626					17.	2.040220		0.00165	0.002	0.050	0.00591
13	2	3.38	0.55	0.57	0.71	5	829	0.0029	3	059	75	664
20	1.9459101					8.2	2.040220		0.00165	0.002	0.023	0.00591
14	1.9459101	3.36	0.45	0.57	0.71	8.2	2.040220 829	0.0029	0.00163	0.002	838	664
17	77	3.30	0.73	0.57	0.71		- 629	0.0029		037	0.50	
20	0.7747271					8.2	2.040220		0.00150	0.001	0.023	0.00591
15	68	3.35	0.45	0.52	0.53	2	829	0.0029	8	537	838	664

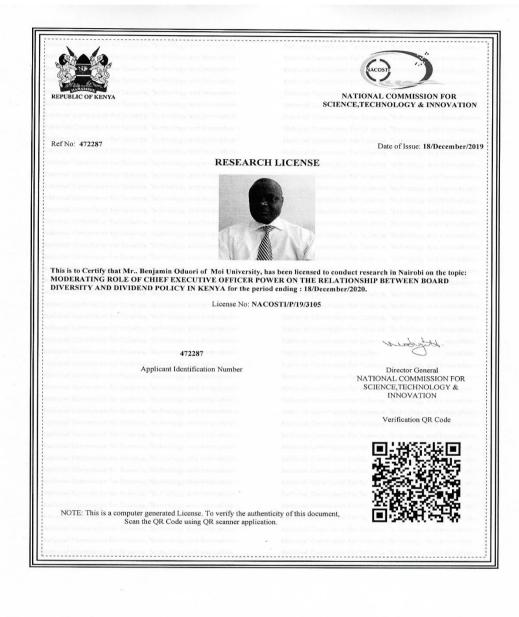
#### **KEY FOR THE INTERACTIONS**

- M1 = Foreign Diversity\*CEO Power
   M2 = Professional Expertise\*CEO Power
   M3 = Gender Diversity\*CEO Power
   M4 = Age Diversity\* CEO Power

# Appendix XI: List of Firm Excluded from the Study

S/NO.	COMPANY NAME	REASON FOR EXCLUTION
1	I & M Holdings Ltd	Was not listed for the entire period of study
2	Hutchings Biemer Ltd	Was not listed for the entire period of study
3	Longhorn Kenya Ltd	Was not listed for the entire period of study
4	Uchumi Supermarket Ltd	Had been suspended from trading in the NSE.
5	Umeme Ltd	Was not listed for the entire period of study
6	British-American Investments Co.(Kenya) Ltd	Was not listed for the entire period of study
7	CIC Insurance Group Ltd	Was not listed for the entire period of study
8	Liberty Kenya Holdings Ltd	Was not listed for the entire period of study
9	Nairobi Securities Exchange Ltd	Was not listed for the entire period of study
10	A.Baumann & Co Ltd	Was not listed for the entire period of study
11	Kenya Orchards Ltd	Was not listed for the entire period of study
12	Atlas Development & Support Services Ltd	Was not listed for the entire period of study
13	Flame Tree Group Holdings Ltd	Was not listed for the entire period of study
14	Home Afrika Ltd	Was not listed for the entire period of study
15	Kurwitu Ventures Ltd	Was not listed for the entire period of study

# **Appendix XII: Research License**



# Appendix Xiii: Plagiarism Test Report

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ID: 1362711335	Similarity Index	Similarity by Source	
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