

**EFFECT OF BOARD DIVERSITY ON INVESTMENTS DECISIONS OF
NON FINANCIAL FIRMS LISTED AT NAIROBI SECURITIES
EXCHANGE**

BY

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DECLARATION

This project is my original work and has not been submitted or presented to any other institution of learning for any academic award.

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DEDICATION

I dedicate this work to my beloved mother Kheroy Mohamed Abbey who inspired me to leave the life of a herds boy, herding my fathers' cattle when I was little boy . Because of her effort and encouragement I was able to enroll in school and pursue my education.

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LIST OF ABBREVIATIONS

- CMA** : Capital Markets Authority
- NSE** : Nairobi Securities Exchange
- PPE** : Plant, Property and Equipment
- R&D** : Research and Development
- RDT** : Resource Dependence Theory
- ROA** : Return on Assets
- ROE** : Return on Equity
- TMT** : Top Management Team Diversity

ABSTRACT

The directors' board is part of the vital bodies employed in decision making for any organization. The board is accountable for complementing the main tactical as well as financial decisions that may include amendments in the composition of capital and investments. As a whole, the company's board of directors is an essential method to the realization of company investment decisions. This study therefore aimed at establishing the effect of board diversity on investment of firms quoted at the Nairobi Securities exchange. The study employed a descriptive research design and population was made of the 48 non-financial entities at the NSE as at 31st December 2017. The study carried out a census of the 48 firms of the non-financial firms. Secondary data was entirely used for the research and was gathered for a span of 5 years since 2013 to 2018. Data was analyzed by use of descriptive and inferential statistics. Descriptive statistics was used to summarize the study data while inferential statistics included the regression analysis. The results established a negative and insignificant relationship between gender diversity and investment decisions but a positive and significant relationship between education levels of the board members and investment decisions of the non-financial firms listed at the NSE. The results further found a negative and significant relationship between nationality of the board members investment decisions whereas the relationship between firm size and the investment decisions of the non-financial firms listed at the NSE was positive and significant. The study also found that the relationship between profitability and investment decisions was negative and significant while the relationship between firm age and investment decisions of the non-financial firms listed at the NSE was positive and significant respectively. The study concluded that firm age, board members nationality, board members education levels; profitability and firm size significantly affects investment decisions of the non-financial firms listed at the NSE.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

The directors' board is among the vital bodies employed in decision making for any organization. The board is accountable for complementing the main tactical as well as financial decisions that may include amendments in the composition of capital and investments (Ferreira, 2015). As a whole, the company's board of directors is an essential method to the realization of company investment decisions (Şener & Karaye, 2014). Investment decisions taken at the board level influence the firm's performance, patterns of financing as well as the prevailing economic situations in the state (Jangili & Kumar, 2010). It is the board's responsibility to supervise the company policies with key stress to identify the composition that aligns the managers' interests and those of stakeholders. The quality of their roles of decision making as well as supervision of the board can be influenced because of gender constitution, age disparity or other issues within the of directors' board and have an effect on firm's decisions to invest (Overveld, 2012).

The theoretical link between board diversity and corporate investments can be clarified through the resource dependency theory, stakeholders' theory and principal-agent theory. The resource dependency theory suggests that directors are seemed to provide vital resources to the entity such as links to major outsiders (suppliers, regulators and fund providers) and guidance as well as advice (Ferreira, 2015). The principal-agent theory presupposes that the directors' board acts as a main control means of helping the alignment of managers' interests and those of the owners (Reguera, Fuentes & Laffarga, 2017). The

stakeholder theory supports that stakeholders possess dissimilar prospects to those perceived by the company owners; hence they may suggest that firm decisions to be accustomed to replicate the stakeholders' prospects (Agyemang-Mintah & Schadewitz, 2017).

In Kenya, the NSE has constantly provided a well governed as well as a globe rank podium for exchange of bonds and equities. NSE is a market of selection for both the local as well as international investors seeking increase of coverage in the capital markets of East African (Maina & Sakwa, 2017). The NSE has recorded growth in the past five years which been connected to the positive development pace exhibited by economy of Kenya and the varying global awareness of Kenya as a safe destination for investment (Koori, 2015). For firms quoted at the NSE, venture entails distinct wealth amounts, this can be demonstrated by the big number of investors in the country. Most of the companies listed in NSE's charisma have been revealed since most investors have made their savings diversify. Kenya has seen NSE listed companies working to attract, retain and develop more women and youth into senior corporate positions (Omondi & Muturi, 2013).

1.1.1 Board Diversity

Diversity of the board is explained as the assortment inbuilt in the constitution of the board, and it can be gauged in various aspects; age, gender, educational background, nationality, ethnicity, association with the firm as well as work skill (Overveld, 2012). Board composition diversity is also explained as a varied blend of qualities, traits and knowledge that entity associates convey to the board as a whole (Reguera, Fuentes & Laffarga, 2017). Diversity of the board stands for a considerable business control

methods so as to actualize competent business administration and supervision within entities (Şener&Karaye, 2014).

Diversity of the board leads an improved market understanding by way corresponding the management's diversity to that of potential clients as well as workforce. To second, it is disputed that diversity of board is part of the main key demographic factors connected with more inventiveness and advancement (Eulerich, Velte&Uum, 2013). Diversity of the board is grouped into evident variety and less evident variety. The evident variety will include diversity in nationality, background of ethnicity, age as well as gender. On the other side, less evident variety will constitute of variability in industry expertise, efficient, professional and education backgrounds as well as managerial relationship (Şener&Karaye, 2014).

Diversity in gender entails the same recognition and dealing of males and females through their dissimilar expertise, resources and their abilities in a company (Noor, Kamardin&Ahmi, 2016). Gender diversity improves the functioning of the board by way of accruing various perspectives, attributes in problem solving, motivating vital thinking as well as creativeness (Ciavarella, 2017). The diversity of age for board members takes a key function in the way the directors try to manage the diverse confronts in the present industry surrounding (Noor, Kamardin&Ahmi, 2016). Moreover, age diversity in the board supplements discussions of the board as individuals from dissimilar age groups have varied perspectives as well as life experiences. For instance, older directors could convey more familiarity in the boardroom whereas younger directors could be more inventive and less risk averse (Ciavarella, 2017).

Heterogeneity in nationality also enriches boardroom discussions as people from unlike cultures might deviate in attitude, preference and principles, which may be shown by their board involvement (Ciavarella, 2017). The existence of foreign states in the team are anticipated in bringing competitive advantages to the entity that may include world wide networks, shareholders' right commitments, and administrative entrenchment evasion (Ujunwa, Okoyeuzu & Nwakoby, 2012). Educational setting is scrutinized as a gauge of skills, know how as well as cognitive capabilities held by persons. Educational setting of the board is referred to the utmost level of education among the boards and is evaluated via definite criterion that may include boards lacking bachelor's level, having bachelor's degree, postgraduate degree, and PhD holders (Noor, Kamardin & Ahmi, 2016).

1.1.2 Investments Decisions

Investments refer to the total sum of funds spend on rising the assets value of an entity. New investment in an entity will consist of additions to assets existing in the entity with the aim to produce more outputs (Jangili & Kumar, 2010). Investment is also explained as the forgo of present expenditure for future expenditures with the intent of increasing future value (Koori, 2015). Investment also refers as the allotment of funds for intermediate or long term and the anticipated impacts is of recovering the cost of investment and has high profits (Alslehat & Altahtamouni, 2014). Investing involves incurring costs for the gain of benefits throughout the projected current or fix assets' life in future dates (Tewolde, 2008). Tangible and intangible asset investment as well as other resource exploitations set for future monetary gains ought to be the face of strategy for companies (Tempel, 2011).

Investment decisions are strategic in nature and they are that primary choice that shapes the undertaking of a business, to say, the vital decisions in terms of the resources committed, actions in use, or the set standards (Kong, Xiao & Liu, 2010). Among the three most primary decisions that an entity takes on its typical daily operations is investment decisions and the other two are the operational and financing decisions (Alslehat & Altahtamouni, 2014). The choice to invest funds is part of the important drivers of the firm's financial structure. Sound investments that apply well planned strategies are essential to the creation of value to the shareholders, and ought to be scrutinized in an appropriate framework as well as a good logical methodology (Tewolde, 2008).

Companies can invest in new amenities for extension with the expectation of extra returns from additional volumes that shall make the investment cost-effectively pleasing. Investments can also be made to upgrade the worn facilities so as to advance cost efficiency (Tewolde, 2008). Investment is standardized by gross fixed assets level so as to explain for the disparities across entities and so investments are gauged using the fraction of gross fixed investments of an entity throughout the period to the gross fixed assets at period commencement (Jangili & Kumar, 2010). The other major proxies used to measure investment include, the net investment in Plant Property Equipment, the investment summation in addition to the study as well as improvement costs. The net sum of investment is also gauged as the overall investment for plant property and equipment as well as the intangible assets net investment resources and the investments which are net in the field of monetary resources and the company's acquisition (Tempel, 2011).

1.1.3 Board Diversity and Investment Decisions

In relation to the economic case for diversity of the board, it is presumed that diversity will promote the board's ability to function, in particular its capacity to take on difficult problem solutions, strategic ways of making decision as well as monitoring the management (Ujunwa, Okoyeuzu&Nwakoby, 2012). The resource dependency theory stipulates that by selection of directors having varied backgrounds and traits, an entity will be capable of benefiting from better accesses of various resources, and consequently, ought to have stronger business performance (Reguera, Fuentes &Laffarga, 2017). The principal agent theory supports that a diverse and autonomous board is a good tactic for conflict resolution among agents and principal (Ujunwa, Okoyeuzu&Nwakoby, 2012). The stakeholder theory explains that functions of the board broaden to defend all the concerned stakeholders' interests hence they may push the company's management to undertake investments which maximize shareholders wealth (Taljaard, Ward & Muller, 2015).

In their study, Vafaei, Ahmed &Mather (2015) assessed the relationship among various gender in the boards of company and the economic performance and established that diversity of board is positively connected to the economic performance of companies. Julizaerma and Sori (2012) also examined the association among diversity of gender in the directors' board and performance of firms and revealed that a positive affiliation is revealed among diversity of gender and performance of the firm. Taljaard, Ward and Muller (2015) studied the effect of diversity of the board and monetary performance and found that ethnic mixture within boards was not

connected to monetary performance however; increased younger average board age and gender diversity had strong affiliations with better performance of share prices

A study by Cabrera-Suárez and Martín-Santana (2015) assessed the impact that definite traits of the boards in Spanish non-quoted companies have on performance and established a poor impact of increased portion for the top directors while a strong impact of both of CEO but there lacked impacts relating to the variety of family directors. Eulerich, Velte and Uum (2013) scrutinized the affiliation among boards' diversity and performance of companies for the German two-tier system and revealed a negative effect of different board mixture traits on company's performance, particularly in regard of nationwide and age diversity.

1.1.4 Non Financial Firms Listed At Nairobi Securities Exchange

Nairobi Security Exchange offers a mechanized space for quoting and commencing the different trades securities. It is accredited and kept in harmony by the Capital Markets Authority (CMA) of Kenya and has the consent of offering a platform for trading for quoted securities as well as administration of its member entities. It also endorses the offers made to the public and the quoting of securities exchanged at NSE (Omondi & Muturi, 2013). The Company is the sole securities exchange licensed by the Capital Markets Authority to promote, develop, support and carry on the business of a securities exchange and to discharge all the functions of a securities exchange in Kenya (Maina & Sakwa, 2017).

The NSE has transformed to become a full securities service trade with service transactions in settlement and clearing of equities, derivatives, debt as well as other

related instruments that may not subsist in some African stock interactions (Adjei, 2015). The exchange comprises of more than 50 active quoted firms with volume of trade of above US \$5 million on daily basis and a sum capitalization of market of approximate US \$15 billion. Separately from equities, company bonds as well as government bonds are even exchanged having an average bond trading of US \$60 million daily. Though NSE has made tremendous development in the market infrastructure, through the establishment of Central Depository Settlement, Capital Market Authority and such like bodies, there still are issues relating to policy, legislation and control where we find conflicting roles and responsibilities (Ndiritu & Mugivane, 2015).

The NSE has over the periods undergone many changes to grow to be the most superior stock exchange in the African East region and part of the most commercial markets in the globe (Adjei, 2015). The non-financial entities go to the subsequent sectors; commercial and agricultural services, accessories and automobiles, telecommunication and technology, allied and manufacturing (Koori, 2015). From the 2017 board diversity report of Kenyan listed companies launched by the Kenya Institute of Management and other partners, it was observed that gender diversity when female representation is at least 25%, has a strong influence in the firms compounded annual increase rate for revenues and assets investment decisions of listed firms.

1.2 Research Problem

The agency theory supports that board diversity advances the monitoring of board since employing directors from a diverse setting offers a distinct lens to the entity (Agyemang-Mintah & Schadewitz, 2017). Conversely, the resource dependency theorist put suggestion

that the boards' role is not only that of settling the agency disagreements, but also providing vital tactical resources to the entity (Ujunwa, Okoyeuzu and Nwakoby, 2012). The stakeholder theory specifies that members of board who represent the firms' stakeholder collection can offer distinctive awareness concerning the varying external stakeholders' demands (Taljaard, Ward & Muller, 2015). However, the opponents of board diversity argue that board diversity causes board wrangles, which can form a completely new description of the agency problem, therefore hindering business operations (Ujunwa, Okoyeuzu and Nwakoby, 2012).

Listed entities in Kenya play a vital function in the contribution of growth of the economy and most quoted firms engage the NSE platform in raising funds for investment purposes (Koori, 2015). The NSE quoted firms have however exhibited poor performance in latest periods. While there are more than 50 NSE quoted firms, not all of them are in a sound financial state regardless of the fact that at the time of quoting, the firms must concur with the quoting requirements of NSE, time given, the firm's position of finance and direction of business may transform for the superior or for the inferior (Maina & Sakwa, 2017). In addition, the CMA principle on practices of company governance (2002) proposes that an impartial board comprises a board that is effective. However, Kenya compares poorly with the best practice market like Norway and Finland in consideration of representation of women in the boardroom and with regards to age diversity, Kenya has a lower board average age as compared to average of 60.6 years (Omondi & Muturi, 2013).

This concept of diversity for the board with its impact on the operations of the company has been extensively examined by a variety of researchers across the world. A study by Ciavarella (2017) assessed the affiliation among diversity of the board and firms'

performance in Europe and found an insignificant connection among diversity of board and firms performance though the paper dwelled on performance and not investments. Further, Ujunwa, Okoyeuzu and Nwakoby (2012) scrutinized the influence of company diversification in terms of board for fiscal operation of listed companies in Nigerian and found a negative connection among gender diversity and performance but a positive connection among board ethnicity, nationality and performance though the focus of the study was performance and not firm investments.

A study by Emoni, Muturi and Wandera (2017) in Kenya looked at the influence of the diversity of board on the structure of capital among quoted firms in the nation and revealed that gender and age had significant and positive effect on capital structure whereas ethnicity and national had negative relationship with capital structure. Letting, Aosa and Machuki (2012) explored the connection among board diversity and fiscal performance of quoted companies at the NSE and revealed an inconsequential connection among board diversity and the fiscal performance listed firms. Based on the studies done, it has been proved that there are adequate studies on board diversity however most of the focus on the effect of diversity of board and fiscal performance of firms. The connection among diversity of board and company investment decision remains unexplored hence an empirical literature gap. This research thustries to provide an answer on the problem; what is the effect of diversification of the board to investment of companies quoted at NSE?

1.3 Research Objective

To establish the impact of board diversity in investment of companies quotes at NSE.

1.4 Value of the Study

The findings of the research shall be of importance to diverse groups, via giving necessary information on the correlation of Board Diversity with company non-financial investments in a bid to reduce ambiguity levels as experienced in the other studies. The results of the research will be significant to those who make policies and strategies who are involved with generating policies of the effect of board diversity on investment decisions of Non-financial firms.

Researchers and academics will benefit from the addition to the existing body of knowledge and understanding of Board diversity. Shareholders of manufacturing and allied firms in Kenya and in particular the ones listed at the NSE will also benefit from the research as it will present findings on the influence of board diversity in investments of the companies which are not financial. Researchers will use the findings to develop more research on the relevant topic on the impact of board diversity on the decision to invest for the Non-financial organizations registered at the Nairobi Security Exchange.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This section includes the review of theoretical literature, determinants of firm investments, the empirical review, the conceptual framework and a summary of the literature that has been reviewed.

2.2 Theoretical Review

The Resource Dependence Theory (RDT), principal-agent theory and stakeholder theory shall be discussed the key theoretical consideration for the research.

2.2.1 Resource Dependence Theory

The Resource Dependence Theory (RDT) is associated to Pfeffer & Salancik (1978). The supposition bases its idea on that the environment delivers the limited resources and that firms depend on these scarce resources for their existence. For firms to be certain of their own existence, they have to develop mechanisms of exploiting these scarce resources bearing knowledge that other firms are also seeking these resources. Instead of considering at the level of firm (Overveld, 2012). The RDT puts focus on the joint interface among firms so as to sustain the resource exchange. According to the theory, firms' long-term success will depend on the accessibility and the possibilities of scheming in regard of vital resources (Eulerich, Velte & Uum, 2013).

The Resource Dependence Theory puts suggestions that businesses subsist for the reason of critically using the available resources to maximize their fiscal performance. The resources accessible to firms may entail human resource, skill,

autonomous propositions and acquaintance either from male or female employees (Agyemang-Mintah & Schadewitz, 2017). The resource dependence theory also assumes that director's board serves to connect the firm to other external firms so as to communicate dependencies to the environment (Reguera, Fuentes & Laffarga, 2017). Resource dependency theorists argue that by integrating member's board that have dissimilar skills, gender, and cultural background along with others, will operate as a tactical resource for the entity that may lead to improved profitability (Ujunwa, Okoyeuzu & Nwakoby, 2012).

According to RDT theory, board of directors that is diverse will represent a team of professionals having diverse proficiency and special background of the industry that provides exceptional assistance to strategic ways of making decisions (Eulerich, Velte & Uum, 2013). To add on, representation on board of members' professionals with diverse ethnicities, backgrounds as well as genders will offer exceptional knowledge and perceptions on the processes of decision making as well as potential resolution of problems (Pechersky, 2016). RDT supports that a board that is diversified can have impacts on the business if it is capable of linking to its resources as well as external surroundings (Agyemang-Mintah & Schadewitz, 2017). In relation to this study, the RDT support that board diversity extends the profile of directors to advance the firms associations with customers and competitors and also the potential of accessing funds which can be used for investment purposes

2.2.2 Principal-Agent Theory

The principle-agent theory was built by Jensen & Meckling (1976) who described agency association as the agreement in which a principal appoints an agent to undertake several services on behalf of him or her, this involves delegation of some authority to make decisions to the agent person (Sumedrea, 2016). This presumption argues that where there is management-owner separation, the management can seek to perform tasks in their own interest which go away from the interest of maximizing the returns to the shareholders (Ujunwa, Okoyeuzu and Nwakoby, 2012). The theory also posits that the supervisory and management board of publicly quoted firms stands as the agents of owners since they take up and perform the managing and monitoring of the business on the shareholders' behalf (Eulerich, Velte & Uum, 2013).

The principal-agent theory puts focus on the disparities that crop up in companies on the basis of contractual dealings among the agent and the principal (Lee-Kuen, Sok-Gee & Zainudin, 2017). According to the theory, the existence of contracts that are incomplete and asymmetric information creates agency disparities between managers and owners. These disparities are connected to expenditure insofar, for instance structures of company control that can lessen these expenditures and therefore happen to be vital performance drivers (Reguera, Fuentes & Laffarga, 2017). In accordance to the theory, the company's management is opportunistic. Thus, in protecting the interests of shareholders, agency theory has made suggestions to create a supervisory body in shareholders' name. The Supervisory function of a board is primarily dependent upon the agency theorem (Pechersky, 2016).

The principal-agent theory suggests that the board's role in an agency structure is to determine the agency disparities among shareholders and managers by way of putting compensations as well as the replacement of managers who creates no value to the owners of the firm (Sumedrea, 2016). This postulation stipulates that a more heterogeneous board will act as a good manager since it board independence levels of a board is increased and board diversity on gender can be a means of reducing the costs linked with agency problems thus improving the firm's value (Agyemang-Mintah & Schadewitz, 2017). The agency presumption puts suggestion that a board which is diverse regularly improves independence levels of a board, and as a result enhances the ability of the board to check on the organization. These presumptions suggest that superior diversity of boards forms better means of control between the management and boards through the enhancement independence of boardroom and improved systems of monitoring (Lee-Kuen, Sok-Gee & Zainudin, 2017).

2.2.3 Stakeholders Theory

This presumption was formulated by Freeman (1984) who explained a stakeholder as any person who can influence or is influenced by the accomplishment of entities goals (Taljaard, Ward & Muller, 2015). This theory posits that general sustenance is provided by all members in which every grouping can be deemed to availing the company with vital resources for the reward of fulfillment of their expectations by promoting their interests (Agyemang-Mintah & Schadewitz, 2017). The stakeholder theory also posits that entities ought to capitalize on the interests of several stakeholders of the firm. The stakeholders will constitute of the human resources, creditors, customers, local communities, debtors and the state (Sumedrea, 2016).

The stakeholder speculations state that the management ought to act not only in the shareholders' interest, even also of all the stakeholders so as to advance the company's value (Sumedrea, 2016). With respect to board diversity, the stakeholder theory supports that it would be good if the directors' board could signify the company's stakeholders. In regard to internationalization, the engagement of foreign member board could be a better way of representing the stakeholders of multinational companies in worldwide environments (Taljaard, Ward & Muller, 2015). The stakeholder theory also supports that boards having varied gender settings bring tactical roles such as evaluation and advisory role, in turn bringing multiplicity in perspective, thoughts and business know-how to the process of decision making in board meetings, that will in the long run improve performance of the firm (Agyemang-Mintah & Schadewitz, 2017).

2.2.4 Behavioral Finance Theory

The theories of behavioral finance were advanced by various authors among them Tversky & Kahneman (1973) who initiated the access to heuristic, Festinger, Riecken and Schachter (1956) who introduced the cognitive dissonance and Pratt (1964) who considered utility functions and risk aversion. Others include Thaler (1980), De Bondt & Thaler (1985) & Grinblatt, Titman & Wermers (1995). Behavioral finance theories explain the impact of psychology with regards to the behavior for the practitioners of finance as well as the resultant impact on the markets. This finance based on behavior is a focus of interest as it expounds on the reasons for market inefficiency (Sewell, 2010). Behavioral finance argues that the markets in finance offer given settings to the investors and that the petty mistakes recorded can result to deviance in the market prices from the predictability of theories (Daniel, 2004).

Behavioral finance theories argue that sometimes customers behave inconsistently with the theory of economy (Sewell, 2010). In addition, behavioral finance theories assert that individual under-weight outcomes which are rarely use to predict or even compare the outcomes gotten from clarity; individuals do away with elements shared by prospects which are considered. For instance, the theory of behavioral finance indicates that investors get credit to profits and losses as compared to financial resources; probabilities are replaced with the weight of decisions (Byrne & Utkus, 2013). Behavioral finance theories explain that individuals over emphasize sudden news in weak ineffectiveness of the stock market (Jureviciene & Ivanova, 2013).

Behavioral finance argues that the ability for a better view of markets of finance with its behavior as well as scope for the investors to make informed choices with regards to acknowledging potential challenges (Byrne & Utkus, 2013). Behavioral finance acknowledges that emotions by investors impact on the decisions to invest. The parties involved in this industry discuss about the effect of fear as well as greed that control the market. Behavioral finance expands its evaluation to cover the impact of partiality while making decisions; like using thumb in coming up with tough decisions on investment (Jureviciene & Ivanova, 2013). With relation to this study, these theories can be applied in elaborating how management of companies makes investment decisions based on the influence of psychology and not based on market fundamentals.

2.3 Determinants of Firms Investment

The study considers the firm's size, liquidity along with the age of listed firms as the key determinants of listed firm investment decisions.

2.3.1 Size of Firms

The size of a company is described as capacity as well as arrangement in production potential as well as prospect that firms have or the array of services that an entity can concurrently avail to its clients (Pervan & Višić, 2012). The firm's size is very important in the present world because of the phenomenon of economies of scale. The big entities can produce commodities on much reduced costs as compared to the small entities. In the present era, firms seek to enlargement of their sizes in order to attain a competitive edge by way of reducing costs of production and improving their share in the markets (Akinyomi & Adebayo, 2013). The bigger companies tend to be competitive than smaller companies in the harnessing of economies of scale in exchanges and they benefit from high levels of returns (Omondi & Muturi, 2013). The big entities are also more in the eye of community and in various situations they have to be role models (Overveld, 2012). A study by Jangili and Kumar (2010) observed that size positively affects firm's present investment and it is statistically considerable that shows that the bigger the firm, the further it ventures in fixed assets. The size of the company is gauged as a natural logarithm of its total assets.

2.3.2 Profitability

Profitability refers to the ability of banks to make revenues from its day to day business operations as well as from its investments in various sectors of the economy (Jangili & Kumar, 2010). Profitability means that the business total revenues outstrips its total costs. It reveals the efficiency of business management in utilizing the firms' resources (Pervan & Višić, 2012). Profitability indicates the competitiveness of an industry as well

as the effectiveness of their top-level management. Profitable firms attract external investors as well as quality employees who improve their performance even further (Akinyomi & Adebayo, 2013). Profitability indicates management efficiency as it's usually used to compare them to other banks. In order for firms to post positive returns, they have to overcome many hurdles like risks associated with business operations and management strategy employed to gain an edge over its competitors (Omet & Yaseen, 2015).

2.3.3 Firm Age

The duration of period in which a thing or being has existed is termed as age. Firms' age is also defined as the period of time a company has been incorporated. The older entities tend to be more established and their experience allows them to cope with unsure situations better (Overveld, 2012). Age can aid entities in becoming more effective though old age may also make know how, capabilities and expertise be outdated and tempt organizational crumble (Omondi & Muturi, 2013). The resource-based view argues that an organization's abilities as well as resources seem to be dependent of age; with the young firms having inadequate resources and reduced abilities than the posed by established firms. Well reputable companies may be at a competitive difficulty in comparison of the less reputable companies due to their trend of being more inflexible in their managerial undertakings and processes of decision making. The inflexibility can hinder businesses from building speedy improvements in their present commodities as well services, and also distinguishing and developing company opportunities (Carr et al., 2010).

2.4 Empirical Review

Reguera, Fuentes and Laffarga(2017) examined the affiliation among diversity of board's gender as well as economic performance of Spain using a trial of 125 organizations that were non-financial quoted in the Madrid stock exchange starting 2005 to 2009. The research results revealed that in the time scrutinized the additional number of ladies on the boards was above 98%. The study as well found that growth in the number of ladies in boards is connected strongly to high financial outcomes and concluded that diversity in gender in the boardrooms ought to be increased. The study however focused on board gender and economic performance and not investment decisions

Lee-Kuen, Sok-Gee and Zainudin (2017) examined the connection among diversity of gender in an entities board and fiscal performance of companies quoted on Bursa Malaysia from 2009 to 2013. Employing unbalanced panel scrutiny data, the research experimented whether diversity of gender in the board may affect the performance of the firm. The study used four varied proxies for diversity of gender (the model variable for ladies, the fraction of ladies in the board, the Shannon index, and the Blau index) to offer a more widespread gauge for diversity of gender. This research revealed that a superior level of women representation on the board improves the fiscal performance of firms. The study only focused on gender diversity and did not incorporate other measures of board diversity.

Midavaine, Dolfsma and Aalbers (2016) examined the effect of board diversity to the degree to which entities make investments in research and development regarding the collected data for the constitution of the directors' board, the researchers statistically

establish if the traits of directors shows the degree to which an entity invests more in research and development. Their study revealed that diversity of tenure lead entities to investing less in research and development while diversity of education as well as gender make entities to invest further, and that diversity of gender positively regulates diversity of education. The study however focused on expenditure as measure of investments.

In Kenya Rajula (2016) studied the impact of diversifying the board in the fiscal operations for the commercial banks through a causal research design with the 42 commercial banks in the country forming the research population. Regression analysis was employed to evaluate the link among the top managements' diversity and banks financial performance. This research clearly proved to be that directors' age, average period of experience, gender and education level has a positive connection with the banks fiscal performance. The study conclusions brought it out plainly that diversity could be a vital corporate governance element in other business sides rather than to boardrooms. The context of the study was commercial banks and not limited firms.

Ageda (2015) examined the effects of board diversity variables like board average age, gender, education level, nationality, board independence and size of the firms and the fiscal performance of entities quoted in the NSE. The findings revealed a strong positive relationship among nationality of the board and the fiscal performance. The findings also established that board average age, gender, education, board independence and the company's size had a negative strong correlation to the fiscal operation of the trading as well as manufacturing firms quoted at the NSE. The study only focused on the listed manufactured firms and not all listed firms.

Ongoso (2014) examined the association among corporate board constitution and the fiscal performance of entities quoted at the NSE through a causal research design approach and focused on the firms listed between 2009 and 2013. The paper used secondary source and data collected from the firm's financial reports filed at the NSE and CMA library. The multiple linear regression was employed in estimation of connection among measures of company performance and independent variables. The results revealed a strong positive connection among board size and corporate fiscal performance and also revealed a positive connection among board autonomy and corporate fiscal performance. The study only focused on board composition and financial firms listed at NSE and financial performance

Ongore et al (2014) studied the relations among board constitution and fiscal performance of entities quoted at the NSE. The paper sampled 46 listed companies and used multivariate regression analysis to analyze data where ROA, ROE and dividend yield were used as financial performance indicators while independent members, gender diversity and board size were used as indicators of board composition. The results established that independence of board had influence of no consequence on fiscal performance, but gender diversity had considerable strong influence on fiscal operation while size of board had an inverse relationship with financial performance. The context of the study was only Non-financial firms listed at NSE and financial performance.

Kitui (2013) examined the influence of board constitution on fiscal performance of entities quoted in the NSE using descriptive study structure. This study population entailed all listed companies quoted at the Nairobi Security Exchange for a span of five years commencing 2008 to 2012. His study made use of secondary data collected from the

yearly fiscal information of individual quoted entities for a period of five years and the findings revealed that board composition indicators among them age, gender, independence and ethnicity significantly influenced listed firms financial performance. The study focused on board diversity and financial performance and not investment decisions.

Horváth and Spirollari (2012) researched the connection among chosen directors on the board traits with fiscal operation of firms engaging a model of large U.S companies from 2005 to 2009. The study found that the extent of insider ownership positively impacts the performance of firms while to a certain extent, the board of directors' age matters. The results also revealed that younger board members are more enthusiastic to put up with more risks and to take on main structural changes to enhance better future scenarios of the firm. The study further revealed that directors that are independent lessen the performance of the firm and the negative impact was yet more vital in the current fiscal disasters. The study focused on financial performance and not investment decisions.

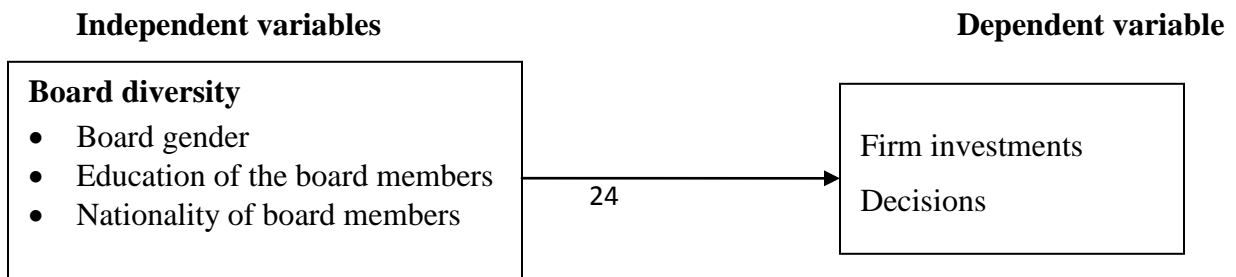
Fraga and Silva (2012) investigated the boards of directors' diversity of Brazilian firms quoted on the BM&F Bovespa with respect to age, gender, educational achievements as well as independence, to establish if there is a connection among any of these diversity gauges and the performance of firms. The research covered all firms without preponderance of a form of company constitution that first was revealed in Brazil the year 2005. The findings established that superior diversity in the educational backgrounds and the existence or nonexistence of board members that are independent negatively impact performance, whereas diversity in years of studying has a positive impact. The study also revealed that the existence of female board members

insignificantly small; however, entities that contain at least one lady director surpass those entities that do not consist of female director. The study only focused on financial performance and not investment decisions.

Tibben (2006) studied the influence of diversity of top administration on an organization's performance in Western European firms from 2007-2009. The study calculated top management team diversity using the uniformly weighted average for adjusted Blau indexes for five variety factors, which included nationality, gender, age, expertise and background in education. The findings revealed that the amount of top management team diversity was restricted particularly with reference to the nationality and gender variables. The study further found that foreign and women directors were not only under-represented in the top management team diversity they also hold less important top management team diversity places than the domestic and male directors. Using panel data scrutiny the paper revealed a reversed U-shape curvilinear connection among diversity of TMT and performance of firms.

2.5 Conceptual Framework

The theoretical structure diagrammatically represents the relationship among the variables of the research. The conceptual model of the study as indicated by figure 2.1 comprises of gender diversity, age of directors, board education levels and board nationality as independent variables and investment as the dependent variable while firm size, firm age and liquidity will make up the control variables.



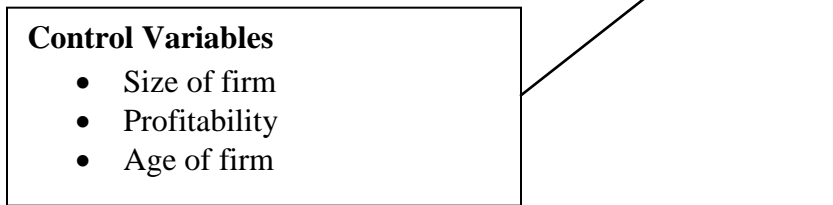


Figure 2.1: Conceptual Framework

Source: Author (2018)

2.6 Summary of the Literature

This research reviewed a number of international and local studies under the empirical literature review. The study by Reguera, Fuentes and Laffarga (2017) examined board gender diversity and economic performance and the study by Lee-Kuen, Sok-Gee & Zainudin (2017) examined diversity of gender with performance in finance. Additionally, a study by Midavaine, Dolfsma & Aalbers (2016) examined diversity of board and R&D expenditure and the study by Horváth and Spirollari (2012) examined board traits and fiscal performance. The reviewed papers have only investigated the connection among board diversity indicators and fiscal performance and not firm investments.

In Kenya, a study by Rajula (2016) examined board diversity as well as fiscal performance of commercial banks and the study by Ageda (2015) examined diversity of the board with the fiscal operations for the listed entities. The paper by Ongoso (2014) examined corporate board structure and the financial performance while Ongore et al (2014)

examined composition of board and fiscal performance. The studies from Kenya also investigate the connection among diversity of board variables and fiscal performance with none focusing on listed firms' investment. This leads to a gap in literature, which this paper seeks to communicate by investigative what is the influence of diversifying the board in investment of organizations quoted at NSE.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

The chapter describes research design, the population of the research, and procedure of collecting research data, test of assumptions under diagnostic tests and the techniques of analyzing the collected research data.

3.2 Research Design

It is defined as the array of condition for collections and scrutiny of data in a manner of merging significance to the intention of the research and financial system as process (Upagade & Shende, 2012). It is also defined as the overall tactic that is chosen to incorporate the various mechanisms of a research in a logical and rational manner, thus making sure that the problem of research is communicated successfully (Sekaran & Bougie, 2011). This study employed a descriptive research design. Descriptive survey designs are suitable where the general-purpose was to ascertain if considerable connection between variables existed at some point. The major objective of the descriptive research design is that it provides relevant information about the features of a population/phenomenon.

3.3 Population of the Study

Population is explained as a combination of essentials from which data can be composed. A population is an indication of scrutiny of the entire elements collected on which the research will be carried (Sekaran & Bougie, 2011). The population of this paper was made of the quoted NSE 48 non-financial entities as at 31st December 2017. The

research conducted a census for the 48 firms of the non-financial firms. A census approach was considered since the population is finite and small and it improves soundness of the data collected by including definite information rich cases for the research.

3.4 Data Collection

Secondary data was entirely utilized in the research. Data was retrieved from listed firm's annual financial reports, which was obtained from the CMA of Kenya and the listed firms' websites. The data was gathered for a span of 5 years since 2013 to 2018.

3.5 Diagnostic Tests

The study test for Multicollinearity, which arises when there is a high connection among autonomous variables was assessed using the variance inflation factors where a VIF figure greater than 10 was treated as an indication of Multicollinearity. Normality was assessed through kurtosis, skewness and plotting of histograms and the Durbin Watson test was used to assess for autocorrelation or serial correlation where a Durbin Watson statistic value of more than 1.5 and less than 2.5 was considered. The study also assessed for heteroscedasticity through plotting of a residual graph. To test for stationery, the study used the Augmented Dickey Fuller (ADF) Test to determine if the data is stationery or not.

3.6 Data Analysis

Data was analyzed through descriptive as well as inferential statistics. Descriptive statistics included application of measures of central tendency, which included frequencies the mean and was used to summarize the collected data into meaningful term. Inferential

statistics included correlation as well as regression and was utilized to establish the association of the independent variables while aiding in drawing conclusions.

3.6.1 Analytical Model

The analytical model for this paper was the multiple regression model which is an arithmetical method employed to assess the affiliation among one dependent variable with several independent variables. The model was formulated as follows

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \varepsilon$$

Where

Y = Investment proxied using the investment ratio, which is the ratio of fixed assets over total assets

X_1 = Gender diversity measured using the ratio of women directors to total directors

X_2 = Education levels of the board members measured using the average score index where 1 presents a degree, 2 represent by a master's degree, 3 represents a PHD and 4 representing other qualifications

X_3 = Nationality of the board members measured using the ratio of foreign directors to total directors

X_4 = Firm's size as measured using the natural log of assets

X_5 = Profitability measured using the return on assets ratio

X_6 = Firm's age measured using the log number of years since incorporation

$\beta_1 - X_6$ = Regression coefficients

β_0 & ε = Constant and error term

3.6.2 Significance Tests

The level of significance is a vital prospect connected to a numerical hypothesis test and it show the likelihood of a deduction in supporting a disparity among an experimented value and some statistical prospect is correct (Zikmund et al., 2013). This paper used the F test to determine the statistical connotation of the regression model as well as the t-test to establish a connotation for the regression coefficients.

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND INTERPRETATION

4.1 Introduction

The chapter comprises of response rate findings, descriptive summary results, a test of assumptions under the diagnostic tests, correlation analysis, regression analysis and finally a discussion for the study results.

4.2 Response Rate

This research conducted a census of 48 organizations of non-financial firms as at 31st December 2017. Complete data was obtained from 35 non-financial firms, which made up a response rate of 72.9% response rate, which deemed enough for the research.

4.3 Descriptive Statistics

Table 4.1 indicates descriptive statistic results which comprises of mean, standard deviation, minimum & maximum figures, number of observations (N), skewness and kurtosis

Table 4.1: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Dev	Skewness	Kurtosis
Investments	175	.152	.993	.58927	.227092	-.299	-1.114
Gender diversity	175	.000	.500	.17421	.134435	.082	-1.023
Education levels	175	1.000	4.000	2.17429	.650748	.535	.383
Nationality	175	.000	.778	.31934	.207145	-.131	-1.041
Firm size	175	12.476	22.222	16.36148	1.942818	.488	.626
Profitability	175	-.282	.346	.04066	.108046	-.251	.829
Firm age	175	1.609	4.745	3.94436	.658490	-1.180	1.236

Source: Research Findings

The descriptive statistics findings on table 4.1 indicate that the average value for investments was 0.58927 with minimum & maximum figures of 0.152 and 0.993 respectively. Average value for gender diversity was 0.17421 with a minimum value of 0.000, which indicates that some boards did not have women directors, and a maximum value of 0.5 respectively. The average value for education levels is 2.17429, which indicates that most directors had a degree with minimum and maximum values of 1 and 4 respectively. Results also indicate that an average of nationality was 0.31934 a minimum value of 0.000, which indicates that some boards did not have foreign directors, and a maximum value of 0.778 respectively.

According to the results, firm size had an average value of 16.36148 with minimum and maximum values of 12.476 and 22.222 while profitability had a mean of 0.04066 with the minimum & maximum figures being -0.0282 and 0.0346 respectively. The mean value for firm age was 3.94436 and minimum and maximum values of 1.609 and 4.745 respectively. The kurtosis and skewness values lies with the recommended ranges of -2 and +2 which indicates that the data was normally distributed.

4.4 Diagnostic Tests

The study assessed for multicollinearity, heteroscedasticity, normality and test for stationarity. The diagnostic results were as follows

4.4.1 Multicollinearity Test

Table 4.2: Multicollinearity Test

	Tolerance	VIF
Gender diversity	.575	1.740
Education levels	.550	1.817
Nationality	.729	1.372
Firm size	.595	1.681
Profitability	.896	1.116
Firm age	.800	1.249

Source: Research Findings

The multicollinearity findings on table 4.2 show that all VIF figures are less than 10 hence an indication the variables are not closely related with each other. Thus, multicollinearity has not been detected among the variables.

4.4.2 Test for Heteroscedasticity

This test was carried out using a standardized residual plot as indicated in figure 4.1

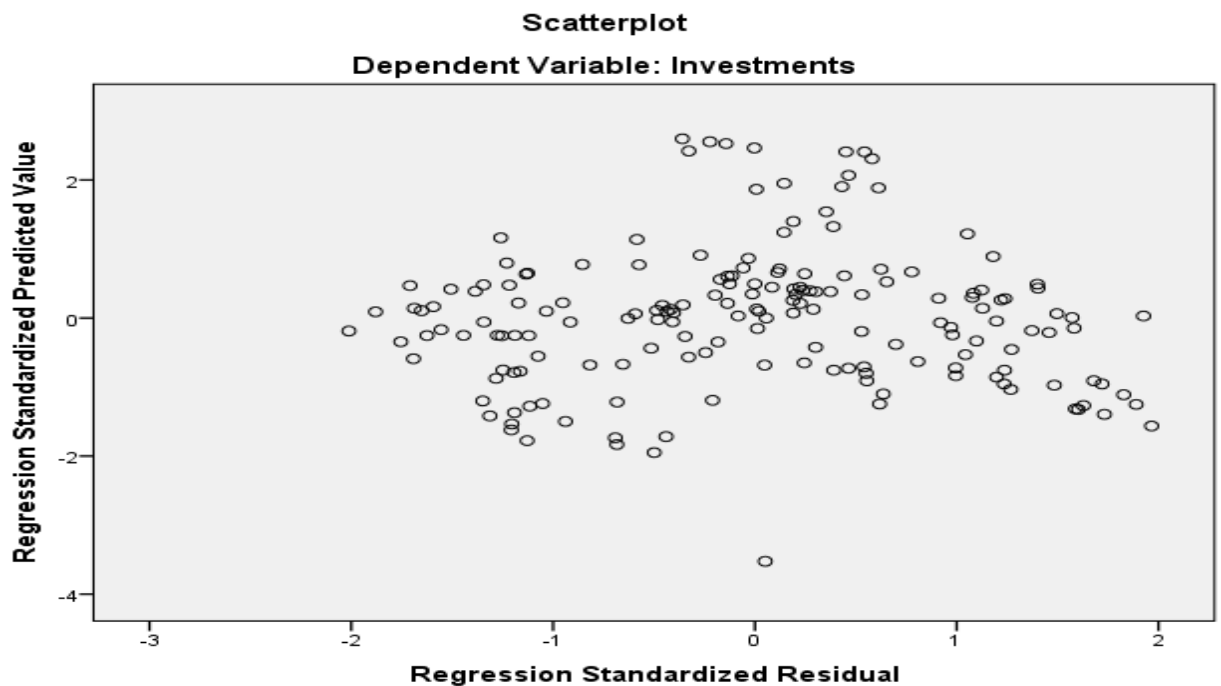


Figure 4.1: Standardized Residual Plot

Source: Research Findings

The findings on figure 4.1 indicate that the plotted points converge at specific points, which indicates the absence of heteroscedasticity, and that the presumed similarity in factors still was upheld.

4.4.3 Normality Test

The study assessed for normality using the Kolmogorov-Smirnov and Shapiro-Wilk as shown in table 4.3

Table 4.3: Normality Test

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Investments	.113	175	.200*	.933	175	.201
Gender diversity	.216	175	.072	.808	175	.100
Education levels	.161	175	.110	.903	175	.302
Nationality	.330	175	.090	.770	175	.510
Firm size	.126	175	.107	.949	175	.068
Profitability	.133	175	.074	.937	175	.057
Firm age	.158	175	.053	.891	175	.061

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Source: Research Findings

The tests of normality results on table 4.3 indicate that all factors for the research were evenly distributed as shown by the all the p figures in both the Kolmogorov-Smirnov and Shapiro-Wilk are less than the significance values of 0.05.

4.4.4 Test for Stationarity

The study assessed for stationarity through the Augmented Dickey Fuller (ADF) unit root test to determine if the factors were stationary or otherwise.

Table 4.4: Test for Stationarity

		Test statistic (t)	Sig.
Investments	Test with constant	-5.34298	0.00000
	With constant and trend	-5.78142	0.00000
Gender diversity	Test with constant	-4.91612	0.00000
	With constant and trend	-4.92269	0.0002547
Education levels	Test with constant	-3.46483	0.008965
	With constant and trend	-3.6312	0.02721
Nationality	Test with constant	-3.54603	0.006908
	With constant and trend	-3.70755	0.02177
Firm size	Test with constant	-3.49731	0.008084
	With constant and trend	-3.48186	0.04129
Profitability	Test with constant	-3.90382	0.002015
	With constant and trend	-4.06848	0.006935
Firm age	Test with constant	-3.52042	0.007505
	With constant and trend	-3.91882	0.01134

Source: Research Findings

Table 4.2 indicates the stationarity findings which indicate that those study variables are stationary as proved by p-figures, that are lower than 0.05. This indicates that the assumption of stationarity has not been violated and the data is stationary.

4.5 Correlation Analysis

The study undertook correlation analysis to assess the nature as well as the strength of correlation of factors in the research.

Table 4.5: Correlation Analysis

	Investments	Gender diversity	Education levels	Nationality	Firm size	Profitability	Firm age
Investments	1						
Gender diversity	.018	1					
Education levels	.187*	.452**	1				
Nationality	-.115	-.349**	.156*	1			
Firm size	.172*	.399**	.517**	.007	1		
Profitability	-.136	.075	.219**	.190*	.011	1	
Firm age	.200**	-.217**	-.076	.042	-.387**	.132	1

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

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

Source: Research Findings

The correlation results on table on 4.5 shows that gender diversity had poorbut strong correlation ($r = 0.018$) with investments while education levels of directors had poorbut strong correlation ($r = 0.187$) with investments. The results also show that the correlation between nationality of the board members and investments was weak and negative ($r = 0.115$) while the correlation between firm size and investments was weak and positive ($r=0.172$). The correlation between profitability and investments was weak and negative ($r=-0.136$) while the correlation between firm age and investments was weak and positive ($r=0.200$) respectively.

4.6 Regression Analysis

The study used regression analysis to determine relations of dependent with independent factors. The results of regression model comprises of the model summary, variance analysis and a summarization of the coefficients.

4.6.1 Model Summary

Table 4.6: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.435 ^a	.189	.160	.208127	1.700

a. Predictors: (Constant), Firm age , Nationality , Education levels, Profitability , Firm size, Gender diversity

b. Dependent Variable: Investments

Source: Research Findings

The findings on table 4.6 indicate that R square value is 0.189, which is an indication that the independent variables which include firm age , nationality , education levels, profitability , firm size, gender diversity account for 18.9% of the change on the dependent factor (investments). The Durbin Watson statistics value of 1.700 lies within the recommended range of 1.5 and 2.5 thus an indication that there is no autocorrelation among the research variables.

4.6.2 Analysis of Variance

Table 4.7: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.696	6	.283	6.526	.000 ^b
	Residual	7.277	168	.043		
	Total	8.973	174			

a. Dependent Variable: Investments

b. Predictors: (Constant), Firm age , Nationality , Education levels, Profitability , Firm size, Gender diversity

Source: Research Findings

Table 4.7 shows that the F statistics value of 6.526 was significant as indicated by the P value of $0.001 < 0.05$. This is an indication that regression model was fit and also acted as a good predictor of the correlation of the research variables.

4.6.3 Coefficients

Table 4.8: Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-.334	.214		-1.565	.119
Gender diversity	-.284	.155	-.168	-1.833	.069
Education levels	.080	.033	.230	2.453	.015
Nationality	-.208	.089	-.189	-2.327	.021
Firm size	.028	.011	.242	2.689	.008
Profitability	-.379	.154	-.180	-2.458	.015
Firm age	.106	.027	.307	3.951	.000

a. Dependent Variable: Investments

Source: Research Findings

The coefficient findings on table 4.8 shows existence of a poor but unimportant correlation of gender diversity with investment decisions of non-financial companies registered in the NSE but there existed a strong and important correlation of education levels of the board members with investment decisions for the companies that are not financial as registered in the NSE. These findings further showed existence a poor but important correlation of nationality of the board members investment decisions of the NSE registered organizations that are not financial. Whereas the relationship between size of the company with the investment decisions of the companies which are not

financial as registered in the NSE was strong and important. The relationship between profitability and investment decisions of the non-financial companies registered by the NSE was poor and important while the correlation of firm age with investment decisions of the organizations which were not financial as registered in the NSE was strong and relevant respectively.

4.7 Interpretation of the Findings

The finding revealed a poor and irrelevant correlation of gender diversity with investment decisions of the companies not financial as registered in the NSE. These results indicate that board diversity lacks an important impact on investment decisions of the companies which were not financial as registered in the NSE. In their study, Vafaei, Ahmed and Mather (2015) established that gender diversity of board is strongly connected to the operations of finances for the companies. Julizaerma and Sori (2012) revealed that a positive affiliation is revealed among diversity of gender and performance of the firm. Kitui (2013) revealed that board composition indicators among them age, gender, independence and ethnicity significantly influenced listed firms financial performance.

The results also established a strong and important correlation of education levels of the board members with investment decisions of the companies that are not financial as registered in the NSE. This result means that there exists an important correlation of education levels of the board members with investment decisions of the companies which are not financial as registered in the NSE. A study by Fraga and Silva (2012) established that superior diversity in the educational backgrounds and the existence or nonexistence of board members that are independent negatively impact

performance. Rajula (2016) found that directors' age, average period of experience, gender and education level has a positive connection with the banks financial performance. Cabrera-Suárez and Martín-Santana(2015) established a poor impact of a biggerpercentage of top management and a strongeffect of duality of CEO but there lacked impacts relating to the variety of family directors.

Based on the results, there existed a poor and relevantcorrelation of nationality of the board members investment decisions of the companies which were not financial as registered in the NSE. This finding this indicates that nationality significantly influences investment decisions of the companies which are not financial as registered in the NSE. A study by Tibben (2006) revealed that the amount of top management team diversity was restricted particularly with reverence to the nationality and gender variables. Eulerich, Velte and Uum (2013) revealed a negative effect of different board mixture traits on company's performance, particularly in regard of nationwide and age diversity.Taljaard, Ward and Muller (2015) found that ethnic mixture within boards was not connected to monetary performance however; increased younger average board age and gender diversity had strong affiliations with better performance of share prices.

Additionally, the study discovered that the correlation of the size of the company with the investment decisions of the companies that were not financial as registered in the NSE was strong and relevant. The result therefore means that size of firms significantly affect the investment choices for these companies.A study by Jangili and Kumar (2010) observed that size positively affects firm's present investment and it is statistically considerable that shows the bigger the firm, the further it ventures in fixed assets.

Ageda(2015) revealed that size of company had a poorstrongcorrelation to the operation of the trading as well as manufacturing firms quoted at the NSE.

Further, the results established that the correlation of profitability with investment decisions of the not financial firms quotedin NSE was negative and significant. This result indicates that profitability significantly affects the investment choices of the companies which are financial as registered in NSE. Omet and Yaseen (2015) support that profitability indicates management efficiency as it's usually used to compare them to other banks. In order for firms to post positive returns, they have to overcome many huddles like risks associated with business operations and management strategy employed to gain an edge over its competitors.

Lastly, the finding established that the relationship between firm age and investment decisions of the companies which were not financial as registered in NSE was strong and relevant respectively. These results indicate that age of the firm has a statistically important effect on the investment decisions of the companies which were not financial as registered in NSE. Carr et al (2010) supports that well reputable companies may be at a competitive difficulty in comparison of the less reputable companies due to their trend of being more inflexible in their managerial undertakings and processes of decision making.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The chapter contains the study summary, conclusions of research in accordance to the findings and recommendations. The chapter finally indicates the limitation of study as well as the recommendation of areas, which require further investigation.

5.2 Summary

The study focused on determining the impact of board diversity in investment of companies quoted in NSE. This research employed descriptive research structure and population was made of the 48 non-financial entities at the NSE as at 31st December 2017. The study conducted a census of the 48 firms of the non-financial firms. Secondary data was entirely used for the research and was gathered for a span of 5 years since 2013 to 2018. Data was analyzed using descriptive as well as inferential statistics. Descriptive statistics was inclusive to utilization of measures of central tendency, which included frequencies the mean and was used to summarize the collected data into meaningful term. Inferential statistics included correlation as well as regression and was applied to assess the association of independent factors while aiding in drawing conclusions. Complete data was obtained from 35 non-financial firms, which made up a response rate of 72.9% response rate, which deemed enough for the research

The descriptive statistics results established that the average value for investments was 0.58927 with minimum & maximum figures of 0.152 and 0.993 while the average value for gender diversity was 0.17421 with minimum figure of 0.000 and maximum figure of

0.5 respectively. The average value for education levels was 2.17429, with minimum & maximum figures of 1 and 4 while the average value of nationality was 0.31934 a minimum value of 0.000 and maximum figure of 0.778 respectively. These results also established that size of the company had an average of 16.36148 with minimum and maximum values of 12.476 and 22.222 while profitability had a mean of 0.04066 with the minimum & maximum figures being -0.0282 and 0.0346 respectively.

These correlation results revealed that gender diversity had a weak and positive correlation with investments while education levels of directors had a weak and positive correlation with investments respectively. The findings also revealed that the correlation between nationality of the board members and investments was weak and negative while the correlation between firm size and investments was weak and positive respectively. The results further found that the correlation between profitability and investments was weak and negative while the correlation between firm age and investments was poor and strong respectively.

The regression results concluded that independent variables, which included firm age, nationality, education levels, profitability, firm size and gender diversity accounted for 18.9% of the variation in investments decisions. The F statistics also revealed that regression model was fit and a reliable predication of the correlation of the research factors. The coefficient findings found that a negative but insignificant correlation of gender diversity with investment decisions but a strong and relevant correlation of education levels for board members with investment decisions of the non-financial companies registered in NSE. The results further found a poor and relevant correlation of nationality of the board members investment decisions whereas the correlation of the size

of the company with the investment decisions of these companies was strong and relevant. The study also discovered that the correlation of profitability with investment decisions was poor and significant while the relationship between firm age and investment decisions of these companies was strong and relevant respectively.

5.3 Conclusions

The results of the study established that there existed a poor and irrelevant correlation of gender diversity with investment decisions for the non-financial companies registered in NSE. The research based on this finding concluded that board gender diversity lacks a relevant impact on investment decisions for these companies.

The findings revealed there existed a strong and relevant correlation of board education levels with investment decisions for the non-financial companies registered in NSE. The research therefore concludes; there exists a relevant correlation of education levels for board members with investment decisions of these companies.

The research findings discovered existence of a poor and relevant correlation of nationality of the board members investment decisions of these companies. The research thus concluded; nationality significantly influences investment decisions for these companies.

The study results established that the correlation of the size of the company with investment decisions for the non-financial companies was positive and significant. The study based on this finding concludes that size of the firm significantly affect the investment choices for these companies.

The research results further established that correlation of profitability with investment decisions for these companies was poor and relevant. The study based on this finding concludes that profitability significantly affects the investment decisions of these organizations.

The finding of the research found; the correlation of firm age with investment decisions for these companies was strong and relevant respectively. The study therefore concludes that age of the firm has a statistically important influence on the investment decisions for these organizations.

5.4 Recommendations

The findings on how gender diversity affects investment decisions of the companies which were not financial as registered in NSE led to this conclusion that board gender diversity lacks a relevant influence on investment decisions of the companies which were not financial as registered in NSE. The research however proposes that shareholder ought to be inclusive of women in the boards as gender diversity improves functioning of the board by way of accruing various perspectives, attributes in problem solving, motivating vital thinking as well as creativeness.

The study results concluded; there existed a relevant correlation of education levels of board members with investment decisions of the companies which were not financial as registered in NSE. The research thus recommends that listed companies should constitute members who are properly educated as diversity of the board in terms of education leads to an improved market understanding by way of corresponding the management's diversity to that of potential clients as well as workforce.

The study also concluded that nationality significantly influences the investment decisions of the companies which were not financial as registered in NSE. The research thus proposes that listed firms ought to involve members of various nationalities since heterogeneity in nationality also enriches boardroom discussions as people from unlike cultures might deviate in attitude, preference and principles.

The findings also concluded; the organization's size affects the investment decisions of the companies which were not financial as registered in NSE. The research therefore proposes that the administration of listed companies ought to invest more in assets to grow their firms since bigger companies tend to be competitive than smaller companies in the harnessing of economies of scale.

The results on the effect of profitability on investment decisions led to the conclusion that profitability significantly affects the investment decisions of the companies which were not financial as registered in NSE. The research therefore proposes that the administration of the listed companies ought to ensure that their firms are profitable since retained earnings will be used to make more investments at the firms.

The research concluded; age of the firm had a statistically significant impact in the investment decisions of the companies which were not financial as registered in NSE. The research therefore recommends that the management of the firm take advantage of their firm age to enhance investment decisions since well-established firms are profitable and well experienced on the best investment decisions.

5.5 Limitations of the Study

The context of this research was the companies which were not financial as registered in NSE. The results can only be generalized to the listed non-financial firms. In addition, the study focused on firm age, nationality, education levels, profitability, firm size and gender diversity. However, there are other measures of the variables which may give different results hence the study is based on the adopted measures.

The research utilized secondary data, which covered 5 years; 2013 to 2017 hence the findings, are generalized with the study period as additional data may give different results and output. The study also used secondary data for the 5 years period is historical any may not show the current events. In addition, secondary data does not consider other qualitative factors, which affects stock return of listed firms.

5.6 Suggestions for Additional Research

The findings of this research proved that the firm age, nationality, education levels, profitability, firm size and gender diversity accounted for 18.9% of the variation in investment decisions while 81.1% was accounted for other factors. The study therefore recommends an additional study on the other factors that may affect investment decisions apart from the considered research variables.

The study also concentrated on the companies which were not financial as registered in NSE. However, the NSE is divided into various segments. A similar study can be carried the various segments at the NSE like the manufacturing sector, agricultural sector, manufacturing sectors which use different ratios of debt.

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APPENDICES

Appendix I: Firms Listed at the Nairobi Securities Exchange

1. Eaagads Ltd
2. Kapchorua Tea Co. Ltd
3. Kakuzi
4. Limuru Tea Co. Ltd
5. Rea Vipingo Plantations Ltd
6. Sasini Ltd
7. Williamson Tea Kenya Ltd
8. Car and General (K) Ltd
9. Sameer Africa Ltd
10. Marshalls (E.A.) Ltd
11. Express Ltd
12. Kenya Airways Ltd
13. Nation Media Group
14. Standard Group Ltd
15. TPS Eastern Africa Ltd
16. Scangroup Ltd
17. Uchumi Supermarket Ltd
18. Hutchings Biemer Ltd
19. Longhorn Kenya Ltd
20. Atlas Development and Support
21. Athi River Mining
22. Bamburi Cement Ltd
23. Crown Berger Ltd
24. E.A.Cables Ltd
25. E.A.Portland Cement Ltd
26. KenolKobil Ltd
27. Total Kenya Ltd
28. KenGen Ltd
29. Kenya Power & Lighting Co Ltd
30. Umeme Ltd
31. Olympia Capital Holdings
32. Centum Investment Co Ltd
33. Trans-Century Ltd
34. Home Afrika Ltd
35. Kurwitu Ventures
36. B.O.C Kenya Ltd
37. Nairobi Securities Exchange
38. British American Tobacco Kenya Ltd
39. Carbacid Investments Ltd
40. East African Breweries Ltd
41. Mumias Sugar Co. Ltd
42. Unga Group Ltd
43. Eveready East Africa Ltd
44. Kenya Orchards Ltd
45. A.Baumann CO Ltd
46. Flame Tree Group Holdings
47. Safaricom Ltd
48. StanlibFahari I-REIT

Source: Nairobi Securities Exchange

Appendix II: Data Collection Sheet

Firm	Year	Foreign director	Women	Total directors	Education index	NCA	Total assets	Age	Net income
ARM	2017	7	2	9	2.25	38,603,863	42,699,067	43	(6,549,812)
	2016	7	0	9	2.25	42,773,131	51,058,802	42	(2,800,175)
	2015	6	0	9	2.25	44,168,407	51,936,664	41	(2,890,841)
	2014	6	0	9	2.25	28,706,803	36,912,580	40	1,493,393
	2013	6	0	9	2.25	22,856,692	29,705,254	39	1,348,803
BAMBURI	2017	5	4	12	3.00	33,225,000	47,203,000	66	1,973,000
	2016	5	4	12	3.00	21,811,000	40,811,000	65	5,890,000
	2015	5	4	12	3.00	15,313,000	33,446,000	64	5,872,000
	2014	5	4	12	3.00	25,446,000	40,991,000	63	3,903,000
	2013	5	4	12	3.00	29,874,000	37,035,000	62	3,673,000
BAT	2017	4	3	10	2.50	9,140,336	17,805,588	110	3,336,006
	2016	3	3	10	2.50	9,531,450	18,499,800	109	4,234,334
	2015	3	3	10	2.50	9,102,184	18,681,184	108	4,976,000
	2014	3	3	10	2.50	9,281,014	18,253,510	107	4,225,314
	2013	3	3	10	2.50	8,467,651	16,985,923	106	3,723,691
Car & General	2017	1	0	7	1.75	4,587,794	9,400,007	64	119,268
	2016	2	0	7	2.00	4,038,345	9,705,198	63	217,426
	2015	2	0	7	1.50	3,711,458	8,988,047	62	127,147
	2014	2	0	7	1.50	3,126,754	8,152,812	61	278,363
	2013	2	0	7	1.50	2,712,838	6,901,430	60	401,189
Carbacid	2017	2	0	6	1.50	2,298,922	3,306,974	56	352,300
	2016	2	0	6	1.50	1,893,513	3,081,768	55	375,568
	2015	2	0	6	1.50	1,854,036	2,968,727	54	393,863
	2014	2	0	6	1.50	1,552,475	2,533,163	53	490,641
	2013	2	0	6	1.50	1,312,332	2,204,394	52	475,541
Centum	2017	4	3	11	2.75	76,290,305	88,385,608	50	8,310,292

	2016	2	2	9	2.25	67,856,540	78,054,000	49	9,947,630
	2015	2	2	9	2.25	63,225,039	72,231,387	48	7,942,432
	2014	2	2	9	2.25	29,394,789	29,597,220	47	3,055,000
	2013	2	2	9	2.25	17,198,958	18,961,552	46	1,034,098
Crown Paints	2017	2	1	7	1.75	1,326,240	5,871,607	59	223,294
	2016	2	0	7	1.75	1,277,284	5,059,029	58	131,796
	2015	2	0	7	1.75	1,245,641	4,539,148	57	30,748
	2014	2	0	7	1.75	986,171	3,852,814	56	19,715
	2013	2	0	7	1.75	778,081	2,945,434	55	213,843
E.A. cables	2017	1	1	6	1.50	4,661,862	7,038,421	51	(662,835)
	2016	1	1	7	1.75	5,318,844	7,548,406	50	(582,602)
	2015	1	1	8	2.00	5,439,068	8,384,143	49	(741,204)
	2014	1	1	8	2.00	4,042,701	7,889,496	48	341,149
	2013	1	1	8	2.00	3,226,081	6,840,055	47	398,202
EABL	2017	6	3	12	3.00	44,531,712	66,666,312	95	8,514,568
	2016	6	4	12	3.00	40,190,000	61,746,000	94	10,270,813
	2015	7	3	12	3.00	41,901,778	66,939,778	93	9,574,905
	2014	7	3	12	3.00	43,058,789	62,865,943	92	6,858,608
	2013	7	3	12	3.00	39,127,360	57,720,462	91	6,522,200
East portland	2017	1	1	7	1.75	25,408,293	27,357,388	84	(1,471,361)
	2016	1	1	7	1.75	25,727,272	27,842,120	83	4,145,755
	2015	1	1	7	1.50	18,690,372	23,112,582	82	7,157,070
	2014	1	1	7	1.50	12,393,196	15,717,257	81	(386,631)
	2013	1	1	7	1.50	12,531,640	16,133,703	80	340,931
Eveready	2017	2	3	6	1.50	194,792	772,652	50	267,173
	2016	4	3	9	2.25	816,253	1,082,806	49	(206,505)
	2015	3	3	9	2.00	871,045	1,511,665	48	(201,509)
	2014	3	3	9	2.00	166,700	930,057	47	(177,589)
	2013	3	3	8	2.00	257,826	941,797	46	45,092
Express kenya	2017	0	0	5	1.00	274,946	375,032	99	(26,824)

	2016	1	0	5	1.00	281,811	379,575	98	(96,938)
	2015	1	0	5	1.00	333,197	441,898	97	60,089
	2014	1	0	5	1.00	402,899	477,922	96	(77,352)
	2013	1	0	5	1.00	377,327	480,525	95	229
Home afrika	2017	1	3	8	2.00	681,012,512	4,477,827,992	9	(181,435,212)
	2016	1	3	8	2.00	747,077,486	3,930,010,782	8	(168,458,361)
	2015	1	2	8	2.00	801,416,000	3,862,316,000	7	(390,091,000)
	2014	1	2	7	1.75	750,647,809	3,177,289,807	6	8,956,029
	2013	1	2	7	1.75	637,806,643	2,569,021,977	5	80,629,957
Kakuzi	2017	4	0	8	2.00	3,338,922	5,746,126	111	593,378
	2016	4	0	8	2.00	2,049,347	3,015,067	110	568,361
	2015	4	0	8	2.00	2,817,369	4,288,966	109	459,714
	2014	4	0	8	2.00	2,589,132	3,857,454	108	160,205
	2013	4	0	8	2.00	2,546,888	3,717,543	107	165,028
kapchorua	2017	4	0	8	2.00	1,241,605	2,030,309	108	(51,769)
	2016	4	0	8	2.00	1,249,010	2,144,587	107	106,696
	2015	4	0	8	2.00	1,338,975	2,329,151	106	234,322
	2014	4	0	8	2.00	1,307,541	1,929,161	105	(22,785)
	2013	4	0	8	2.00	1,255,138	2,078,475	104	125,991
Kengen	2017	0	4	13	3.25	347,557,174	377,196,543	63	9,057,131
	2016	0	4	13	3.25	345,332,376	367,248,796	62	6,743,492
	2015	0	4	13	3.25	321,151,022	342,519,995	61	11,517,327
	2014	0	5	13	3.25	222,574,881	250,205,524	60	2,826,323
	2013	0	5	13	3.25	163,545,472	188,673,282	59	5,224,704
Kenol	2017	2	2	5	1.25	5,931,196	24,099,030	58	2,464,703
	2016	2	0	4	1.00	6,564,485	24,201,705	57	2,413,207
	2015	2	1	6	1.50	6,722,294	17,377,103	56	2,014,974
	2014	3	1	6	1.50	8,427,147	23,915,166	55	1,091,284
	2013	3	1	6	1.50	8,740,004	28,121,673	54	558,419
KPLC	2017	0	3	11	2.75	276,367,133	341,653,227	95	7,266,131

	2016	0	3	11	2.75	247,532,363	297,542,180	94	7,196,563
	2015	0	3	11	2.75	209,430,675	275,493,150	93	7,431,957
	2014	0	2	11	2.75	169,697,493	220,109,352	92	6,456,234
	2013	0	2	11	2.75	146,484,553	184,212,535	91	4,352,165
KQ	2017	4	2	11	2.75	119,397,000	146,144,000	40	10,072,000
	2016	4	3	13	3.25	128,705,000	158,415,000	39	(26,225,000)
	2015	4	3	13	3.25	141,011,000	182,063,000	38	(25,743,000)
	2014	4	3	13	3.25	119,021,000	148,657,000	37	(3,382,000)
	2013	4	3	13	3.25	94,088,000	122,696,000	36	(7,864,000)
Limuru tea	2017	3	0	6	1.50	121,732	262,009	82	(22,134)
	2016	1	0	4	1.00	137,975	282,193	81	(19,074)
	2015	1	0	5	1.25	150,203	342,161	80	2,547
	2014	1	0	5	1.25	206,593	338,600	79	(331)
	2013	1	0	5	1.25	204,325	343,007	78	28,513
Longhorn	2017	0	3	9	2.25	607,859	1,858,734	24	133,876
	2016	0	3	9	2.25	354,026	1,866,944	23	104,063
	2015	0	3	9	2.25	225,844	689,320	22	71,726
	2014	0	3	9	2.25	198,711	747,531	21	94,933
	2013	0	3	9	2.25	200,695	685,019	20	93,918
Mumius	2017	0	4	8	2.00	22,230,804	24,091,095	46	(6,803,384)
	2016	0	4	8	2.00	25,107,708	27,018,727	45	(4,731,026)
	2015	0	3	11	2.75	17,326,474	19,181,960	44	(4,644,801)
	2014	0	3	11	2.75	19,209,782	23,563,086	43	(3,359,595)
	2013	0	3	11	2.75	20,222,053	27,270,417	42	(1,660,406)
NSE	2017	3	3	11	2.75	1,035,836	2,108,220	63	218,806
	2016	2	3	11	2.75	1,004,550	2,013,745	62	183,956
	2015	2	3	11	2.75	990,822	1,918,235	61	305,592
	2014	0	2	8	2.00	897,037	1,685,104	60	320,041
	2013	0	2	8	2.00	864,180	1,149,124	59	262,419
NMG	2017	7	2	16	4.00	5,009,200	11,320,300	58	1,350,900

	2016	8	3	16	4.00	5,010,800	12,174,100	57	1,634,000
	2015	8	3	16	4.00	5,171,800	12,339,500	56	2,071,100
	2014	8	3	16	4.00	4,569,300	11,944,300	55	2,460,500
	2013	8	3	16	4.00	3,877,900	11,444,200	54	2,533,200
Olympia	2017	0	1	5	1.25	1,202,603	1,556,804	49	39,835
	2016	0	1	5	1.25	1,108,023	1,527,522	48	14,834
	2015	0	1	5	1.00	1,093,968	1,531,409	47	(29,551)
	2014	0	1	5	1.00	1,183,534	1,576,337	46	45,043
	2013	0	1	5	1.00	1,167,052	1,897,407	45	7,884
Safaricom	2017	6	4	12	3.00	136,527,173	161,686,996	18	48,444,418
	2016	6	4	12	3.00	129,242,044	159,182,485	17	38,104,290
	2015	6	4	12	3.00	124,367,073	156,960,000	16	31,870,000
	2014	6	4	12	3.00	106,279,478	134,600,946	15	23,017,540
	2013	6	4	12	3.00	103,500,133	128,856,157	14	17,539,810
Sameer	2017	3	3	8	2.00	1,271,378	2,969,868	48	13,029
	2016	3	1	7	1.75	1,000,585	3,290,867	47	(652,101)
	2015	3	1	7	1.75	985,680	3,751,225	46	(15,652)
	2014	3	1	7	1.75	985,281	3,857,392	45	(66,929)
	2013	3	1	7	1.75	845,956	3,668,487	44	401,189
Sasini	2017	4	1	8	2.00	10,210,855	13,196,025	65	339,407
	2016	4	1	8	2.00	14,033,606	16,818,463	64	576,985
	2015	4	1	8	2.00	13,985,862	16,044,527	63	1,101,212
	2014	4	1	8	2.00	13,684,494	14,929,577	62	45,421
	2013	4	1	8	2.00	7,759,321	9,054,366	61	91,689
Scan group	2017	5	0	8	2.00	2,834,897	13,758,912	18	477,943
	2016	5	0	8	2.00	2,374,237	13,486,398	17	410,727
	2015	5	0	8	2.00	2,331,575	12,468,479	16	478,672
	2014	5	0	8	2.00	2,360,945	13,284,104	15	625,476
	2013	5	0	8	2.00	2,284,630	12,744,583	14	831,327
Standard media	2017	2	1	9	2.00	2,585,175	4,459,637	115	(210,838)

	2016	2	1	9	2.00	2,403,240	4,404,931	114	198,521
	2015	4	1	8	2.00	2,651,168	4,355,614	113	(289,603)
	2014	4	1	8	2.00	2,610,730	4,101,749	112	220,514
	2013	4	1	8	2.00	2,493,185	4,136,762	111	189,493
Total	2017	5	2	9	2.25	11,533,589	38,012,115	58	2,738,216
	2016	5	2	9	2.25	10,805,922	36,185,372	57	2,234,392
	2015	5	2	9	2.25	10,766,844	32,541,800	56	1,615,003
	2014	5	2	9	2.25	10,301,663	32,541,800	55	1,424,088
	2013	5	2	9	2.25	9,946,901	39,984,165	54	1,312,277
TPS serena	2017	6	1	10	2.50	14,840,166	17,486,823	20	119,465
	2016	6	1	10	2.50	13,620,435	16,983,115	19	119,175
	2015	6	1	10	2.50	13,491,212	15,815,800	18	(280,613)
	2014	6	1	10	2.50	13,711,998	15,939,177	17	108,636
	2013	6	1	10	2.50	13,865,058	16,136,097	16	451,011
Transcentury	2017	2	1	9	2.00	12,936,460	18,740,964	20	(4,331,282)
	2016	2	1	9	2.00	13,189,323	18,911,552	19	(863,890)
	2015	0	2	9	2.00	13,104,427	21,817,981	18	(2,422,574)
	2014	0	2	8	2.00	11,228,995	19,463,658	17	(2,277,929)
	2013	0	2	8	2.00	15,056,039	23,840,273	16	626,432
Unga group	2017	3	3	9	2.25	3,668,100	10,267,471	109	(32,286)
	2016	3	3	9	2.25	3,380,021	9,199,783	108	508,816
	2015	3	3	9	2.25	5,674,928	8,671,788	107	327,189
	2014	2	3	9	2.25	2,541,402	8,026,578	106	382,767
	2013	2	3	9	2.25	2,272,647	8,108,379	105	264,773
Williamson	2017	4	0	8	2.00	5,351,008	8,382,127	108	676,960
	2016	4	0	8	2.00	5,550,770	8,931,395	107	482,747
	2015	4	0	8	2.00	5,782,405	9,285,306	106	(227,636)
	2014	4	0	8	2.00	5,819,757	8,558,558	105	740,721
	2013	4	0	8	2.00	5,339,470	8,023,834	104	855,659

Source: Resaerch findings