

**THE EFFECT OF BOARD OF TRUSTEES DIVERSITY ON THE  
FINANCIAL PERFORMANCE OF SEGREGATED PENSION  
FUNDS IN KENYA**

**BY**

**BRENDA AMONDI ODHIAMBO**

**D61/74252/2014**

**A PROJECT SUBMITTED TO THE SCHOOL OF BUSINESS IN  
PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE  
DEGREE OF MASTER OF BUSINESS ADMINISTRATION  
OF THE UNIVERSITY OF NAIROBI**

**OCTOBER, 2016**

## **DECLARATION**

I declare that this research project is my original work and has not been submitted for an award of a degree in any other University for examination/academic purposes.

**SIGNATURE**.....**DATE:** .....

**BRENDA AMONDI ODHIAMBO**

This research project has been submitted for examination with our approval as the University Supervisors.

**SIGNATURE:**.....**DATE:**.....

**MR. DOMINIC MURAGE**

Lecturer

Department of Finance and Accounting,

School of Business,

University of Nairobi

**SIGNATURE:**.....**DATE:**.....

**MR. JAMES KARANJA**

Lecturer

Department of Finance and Accounting,

School of Business,

University of Nairobi

## **ACKNOWLEDGEMENT**

I would like to give honor and glory to the Almighty father for his unending grace. It is through him that I have been able to complete this research and without his sufficient grace and strength this wouldn't have been possible. Many thanks also go to my supervisors, Mr. Dominic Murage and Mr. James Karanja for their availability, sustenance and devotion in ensuring that I completed my project in time. My indebtedness to all of you surpasses any measure, may the everlasting father bless all of you abundantly as you meticulously gather and propagate knowledge to those who thirst for it.

## **DEDICATION**

This research project is dedicated to my parents; the late James Paul Odhiambo and Margaret A. Odhiambo. You gave me the tools and values essential to be where I am today. Your belief in richness for knowledge is inspiring.

# TABLE OF CONTENTS

<b>DECLARATION</b> .....	<b>ii</b>
<b>ACKNOWLEDGEMENT</b> .....	<b>iii</b>
<b>DEDICATION</b> .....	<b>iv</b>
<b>LIST OF TABLES</b> .....	<b>vii</b>
<b>ABBREVIATIONS</b> .....	<b>viii</b>
<b>ABSTRACT</b> .....	<b>ix</b>
<b>CHAPTER ONE: INTRODUCTION</b> .....	<b>1</b>
1.1 Background of the Study .....	1
1.1.1 Board of Trustees Diversity .....	2
1.1.2 Segregated Pension Funds Financial Performance .....	3
1.1.3 Board of Trustees Diversity and Financial Performance .....	4
1.1.4 Pension Funds in Kenya.....	5
1.2 Research Problem .....	7
1.3 Research Objective .....	9
1.4 Value of the Study .....	9
<b>CHAPTER TWO: LITERATURE REVIEW</b> .....	<b>11</b>
2.1 Introduction .....	11
2.2 Theoretical Review.....	11
2.2.1 Agency Theory.....	11
2.2.2 The Stakeholder Theory .....	12
2.2.3 Stewardship Theory .....	13
2.2.4 Resource Dependency Theory .....	14
2.3 Determinants of Pension Funds’ Performance .....	15
2.3.1 Board of Trustees Diversity .....	15
2.3.2 Fund Assets .....	16
2.3.3 Density of Contributions .....	18

2.3.4 Age of Contributors .....	18
2.4 Empirical Review .....	18
2.5 Conceptual Framework.....	24
2.6 Summary of Literature Review .....	25
<b>CHAPTER THREE: RESEARCH METHODOLOGY.....</b>	<b>26</b>
3.1 Introduction .....	26
3.2 Research Design .....	26
3.3 Population of the Study .....	26
3.4 Sample Size and Sampling Procedures .....	27
3.5 Data Collection .....	27
3.6 Data Analysis.....	27
3.7 Inferential Statistics .....	29
<b>CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION .....</b>	<b>30</b>
4.1 Introduction.....	30
4.2 Board diversity .....	30
4.2. Descriptive Analysis Results .....	32
4.3 Interpretation of the Findings.....	37
<b>CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS ..</b>	<b>39</b>
5.1 Introduction.....	39
5.2 Summary .....	39
5.3 Conclusion .....	40
5.4 Recommendations for Policy .....	40
5.5 Limitations of the Study.....	41
5.6 Suggestions for Further Studies .....	42
<b>REFERENCES.....</b>	<b>43</b>
<b>APPENDICES.....</b>	<b>47</b>
Appendix I: List of registered pension schemes .....	47
Appendix II: Categorization of Education Level .....	479

## LIST OF TABLES

Table 4.1: Frequency of Board Attributes (Composition).....	31
Table 4.2: Correlations .....	33
Table 4.3: Model Summary .....	34
Table 4.4: Analysis of Variation.....	35
Table 4.5: Coefficients .....	36

## **ABBREVIATIONS**

**CSPS**.....Civil Servants Pension Scheme

**CEO**.....Chief Executive Officer

**DB**.....Defined Benefit

**DC**.....Defined Contribution

**FP**.....Financial Performance

**GoK**.....Government of Kenya

**IRS**.....Individual Retirement Schemes

**MFI's**.....Microfinance Institutions

**NSSF**.....National Social Security Fund

**OECD**.....Organization of Economic Cooperation and Development

**ORS**.....Occupational Retirement Schemes

**RBA**.....Retirement Benefits authority

**ROA**.....Return on Assets

**ROE**.....Return on Equity

**SRBS**.....Staff Retirement Benefits Scheme

**SPF**.....Staff Provident Fund



## **ABSTRACT**

Empirical research has been carried out on the relationship between board diversity and firm's performance but the researchers findings have revealed mixed results, either positive, negative or no relationship at all (Randoy et al 2006). The objective of the study was to establish the effect of board of trustee's diversity on financial performance of segregated pension funds in Kenya. This study employed a quantitative approach. The target population was all the 38 registered schemes administered by Liaison Financial Services. The study applied secondary data which was extracted from the specific pension funds annual reports and accounts for the five year period from 2010 to 2014. Numerical data collected was coded and entered and analyzed using a computer Statistical Package for Social Scientists (SPSS) programme. Frequency tables with varying percentages will be used to present the finding. The study showed a positive relationship between financial performance and education level and professional experience of the board executives. Whereas, the gender and average age of the board members had a negative correlation to financial performance of the segregated pension funds in Kenya. The study similarly established that there is a linear relationship between Returns on Assets and Cash Deposits, Government Securities, Corporate bonds, and Other Investments had a similar relationship but the strength of the correlation was found to be weak.

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of the Study

Over the years, empirical research has been carried out on the relationship between board diversity and firm's financial performance but the researchers' findings have revealed mixed results, either positive, negative or no correlation at all. (Randoy et al 2006). Board diversity refers to variation in board composition. The board composition attributes constitute of employee status, professional and personal attributes. Employee status refers to the status of the board member as an employee of the firm, whether executive or non-executive. On the other hand, professional attributes refer to the perceived advantages of having various professionals such as lawyers and accountants as members of the board. Finally, is the personal attributes which include characteristics such as age, gender, ethnicity and cognitive styles.

Whereas the relationship between board diversity and performance of the firm is upheld by a few theories such as Agency, Resource dependency and stakeholder theories, different results have emerged in empirical studies. According to Carter et al (2010) agency theory, focuses on the monitoring function of board, and more particularly the role, it plays in protecting the shareholders from the self-interests of management. Generally, the theory does not provide a strong connection between board diversity and financial performance nonetheless it recognizes the positive impact; diversity has on the board's monitoring position. In resource dependency theory, the board is mirrored as a strategic resource, as board members may be linked to various valuable resources such as capital, customers, suppliers and partners. A diverse board is able to strengthen its links between the firm and environment thereby

securing valuable resources and subsequently enhancing performance. Finally, stakeholder theory, seeks to harmonize the interests of firm's stakeholders and their satisfaction.

The study concentrates on the segregated pension funds in Kenya attributable to the restricted research in this segment of the economy and the way that secondary data of the pension funds in Kenya is readily available in the Retirement Benefits Authority (RBA) website and the annual audited financial accounts and reports of the registered pension schemes.

### **1.1.1 Board of Trustees Diversity**

Board diversity refers to having a variety of directors who are dissimilar from one another. Age, gender, education, nationality and the industry experience of the board members have been commonly determined as the key indicators of diversity (Letting Aosa & Machuki, 2012). According to McIntyre et al (2007) age diversity is measured as the standard deviation of ages of the board members as the concern is placed on the spread of their ages and not the range between the youngest and oldest board members. Gender is measured as the ratio of female to the total number of board members whereas nationality is computed as the ratio of non-Kenyan to Kenyan board members. Finally, is education which is measured using variables like O' levels, A' levels, Diploma, university undergraduate, masters or doctor of philosophy.

Marimuthu (2008) defines board of trustees' diversity as variety in age, sexual orientation, race, ethnicity and social personalities among board members whereas Roosevelt (2001) view diversity as an emphasis on the impact of ages, various cultures, educational levels, gender, regional backgrounds, sexual orientation and

ethnicity on quality, product advancement and other point of convergence of business issues. Verspaandonk and Holland (2003) defines diversity to comprise of sex, age, language, ethnicity, cultural background, sexual orientation, socio economic foundation, identities, religious convictions, family duties and psychological style.

Studies have shown that it is imperative to have a diverse board, in that through a heterogeneous board, decision making is more effective, there is a better utilization of talent pool, and last but not least, it improves corporate image and investor relations by building up the organization as a mindful corporate citizen. However, there are costs associated with diversity as well. Milliken and Martins (1996) argue that any type of diversity can create difficulty for groups and this is due to complex and implicit differences in assumptions, views and casual beliefs among the members. A heterogeneous group might have members who may have different experiences and as a result different views on key issues.

### **1.1.2 Segregated Pension Funds Financial Performance**

The term Performance alludes to the achievement of a given undertaking measured against preset principles of exactness, completeness, cost and speed. Financial performance is commonly termed as a measure of a firm's general financial wellbeing over a given time frame, and can be utilized to look at comparative firms over the same business or compare ventures or divisions in conglomeration. Carton (2004), clarifies that the measures utilized to represent performance are chosen based upon the prospects of the firm being examined and the measures picked show the results accomplished, whether satisfactory or unsatisfactory.

Schwizer et al., (2012) utilized Return on Assets and Tobin's Q to determine firm's financial performance although Wang and Cliff (2011) applied the use of Return on assets (ROA) and return on equity (ROE) to compute firm's value. Van et al., (2010), Marimuthu (2010) utilized Return on Asset (ROA) to measure financial performance on the basis that it is both a measure of profitability and asset utilization. Aduda et al., (2013) used Return on Assets and Tobin's Q as measures of financial performance. ROA is computed as after tax profit divided by total assets. ROE is computed as the ratio of after tax profit to shareholders' equity whereas Tobin's Q is computed as the total market value divided by total assets.

Thomas and Tonks (2001) give different performance measures for pension funds. Foremost, the Jensen's technique regresses the individual fund excess returns above risk free rate against the excess market return and any other determining factors of return. Secondly, the TreynorMazuy test is enforced in occurrences where there is need to provide an allowance for the fund managers market timing abilities when the managers of the fund take a defensive position in a bear market and a forceful position in bull market.

### **1.1.3 Board of Trustees Diversity and Financial Performance**

Boards are considered as the link between an organization and the fundamental assets required by the organization from the external environment for predominant performance. According to Johnson et al., (1996), the appointment of external board members assists in accessing resources which are critical to firm's achievement. The resource dependency theorists broadened the contention by positing that board members with different skills, diverse cultural background, distinctive sexual orientation, among others, will go about as key asset to the firm which may result to a

superior performance (Johnson et al., 1996). It is further contended that diversity advances the functionality of the board, especially its ability to take part in complex critical thinking, strategic decision making, and oversight by management (Forbes & Milliken, 1999).

Hypothetically, there are various contentions for board of trustee's diversity. For instance, Carter et al. (2003) put emphasis on five positive arguments for board diversity in a principal agent framework. They discovered that to a greater extent a diverse board can settle on a choice in view of the assessment of more options than a more homogenous board. A board which is diverse in nature is deemed to have unrivaled perception of the market location of the organization, which increases innovation and creativity. Board diversity may likewise enhance the firm's corporate image if the positive image impacts positively on the customers' behavior.

#### **1.1.4 Pension Funds in Kenya**

A pension fund is defined as an institutional investor, through which pools are collected and funds contributed by the sponsors and beneficiaries are invested. The pension schemes play a huge part in the Kenyan economy as they provide a way for individuals to aggregate their life savings throughout their working period in readiness for financing their utilization needs when they retire from dynamic business. (Davis, 1995)

Diversity enhances the efficiency of a board, more specifically its capacity to participate in critical thinking and strategic decision making. Consequently, pension fund's boards are perceived as learning-based resource that aids in shareholder value addition by linking an organization to the external environment. Furthermore, to improve on the pension funds' performance, the acquisition of skills and knowledge is critical as it caters to board expert needs, particularly when the boards match their diversity to that of their stakeholders.

The pension industry in Kenya comprises the Retirement Benefits Authority as a regulatory body, National Social Security Fund (NSSF), Civil Servants Pension Scheme (CSPS); Occupational Retirement Schemes (ORS) and Individual Retirement Schemes (IRS). The total number of registered pension schemes in Kenya is 1318 with a membership of 18 million members. The pension schemes provide coverage of 18% of the total formal labor force (RBA, 2015).

RBA was created as part of the Government financial reforms to mobilize domestic savings, develop the capital market and enhance the development of economy. Its primarily objective is the safeguarding of scheme members and sponsors interests, development of the industry and alleviation of old age poverty by intensifying saving for retirement.

NSSF was established in 1965 through a parliamentary act. The fund was instituted as a public provident with an estimated coverage of 67% of the total working population in Kenya. The NSSF contributions are compulsory for staff in institutions with at least 5 staff, in that individuals contribute 5% of their basic salary subject to a maximum of 200 shillings and the employer pays an equivalent amount to NSSF. Civil servants pension schemes were created for the civil servants, judiciary employees, military personnel, armed forces, teachers and parliamentarians whereas Occupational schemes are employer sponsored schemes; hence they are only open to the employees of that particular organization. The schemes are established under a trust deed and its membership is on a voluntary basis.

The Individual Retirement Scheme is a scheme operated by an independent entity and is therefore free for the public to join. IRS are enforced by financial institutions and more specifically the insurance companies in Kenya which provide a platform for employees who do not belong to any scheme and those who wish to make additional voluntary contributions an opportunity to save.

## **1.2 Research Problem**

The board diversity effect on the firm's financial performance has been a critical issue since the global financial crisis (Adams & Ferreira, 2007). Thus the fundamental objective of this study is to investigate regardless of whether the independent variable characteristics taken into consideration of this study can influence the performance indicators of the firm. Therefore, the major expectation of this study is to determine the effect of board diversity on the financial performance of pension industry in Kenya.

In the opinion of Brunner, Hinz and Rocha (2008) the Kenyan pension schemes have been attributed to rampant mismanagement and misappropriation of funds that has led to their social and financial underperformance. Ultimately, this has contributed to a lower growth in the pension industry. Additionally, questions have arisen regarding the management strategies employed by the fund managers and this point to the inefficiency in application of corporate governance practices in the pension sector. According to RBA (2010) most of the pension schemes in Kenya, have been grossly underfunded whereas others have poor investment strategies resulting to imprudence in the investment of pensioner's funds. Further, the gross financial inefficiency that have been associated with most pension schemes in Kenya have resulted to higher costs of operation, low returns yielded by ventures and loss of funds, in utmost circumstances (Bikker & Dreu,2009)

There have been studies conducted on the effect of board diversity on the financial performance of the firm. Globally Darmadi (2010) tried to find out the correlation between board diversity and financial performance of companies quoted on the Indonesian Stock Exchange (IDX) and his findings revealed a significant relationship



with gender diversity while nationality diversity had no influence on firm's performance. On the other hand, Ujunwa (2012) investigated the influence of characteristics of corporate board on the financial performance of Nigeria quoted firms and his results indicated that CEO duality and size of the board were negatively correlated to performance of the firm while nationality of the board, ethnicity and the sum of board members with Doctor of Philosophy qualification impacted positively on organization's performance.

Smith et al (2005) studied the effect of women in topmost administrative positions and board of directors on the performance of Danish firms and their findings showed that the proportion of women in top management positions was positively correlated to firm's performance whereas Wang and Cliff (2009) investigated the relationship between the minority representation of non-Anglo Australian corporate boards and financial performance. Their results showed that the proportion of the non-Anglo Australian male directors on the board did not represent any significant impact on the financial performance. Sandal et al (2005) conducted a study to look at the mechanisms of corporate governance and financial performance of institutions in Nigeria and their finding showed that board composition is partially positively correlated to firm's performance.

Locally, studies have been conducted on the effect of board diversity on the financial performance of the companies listed on Nairobi Securities Exchange. For instance, Aosa, Letting and Machuki (2012) studied the effect of particular practices of corporate governance on the performance of organizations in Kenya while Neema and Olomi (2012) examined the boards' impact on the performance of micro finance institutions in Kenya and Tanzania. Wanyama and Olweny (2013) also conducted a study to establish the corporate governance impact on financial performance of listed

insurance companies in Kenya and the outcome was that, board composition was positively correlated to financial performance. In addition, Aduda et al (2013) studied the correlation between board composition and firm's performance of companies listed at the Nairobi Securities Exchange and the outcome of the study showed a positive correlation between board compositions attributes and the financial performance of the firms listed on Nairobi Securities Exchange.

Despite all studies that have been done with regard to the topic, no study has been done on effect of board of trustees' diversity on the financial performance of pension funds in Kenya. In this field, there is a creation of knowledge that the study fills by investigating effect of board of trustees' diversity on the financial performance of segregated pension funds in Kenya. The research consequently seeks to address the question: Is there a relationship between board trustee diversity and financial firm performance of segregated pension funds in Kenya?

### **1.3 Research Objective**

The study tries to find out the effect of board of trustee's diversity on financial performance of segregated pension funds in Kenya.

### **1.4 Value of the Study**

The study findings will highly contribute to the literature existing on the pension fund's level of performance. In view of this area having great capability of further development and drawing further academic research, the findings will help in providing reference materials for future researchers both locally and globally.

Policy makers who are insiders in the pension funds industry in Kenya will as well obtain a clear understanding on the performance of pension funds' and board of trustee diversity focus. This will form a benchmark for best practice that will empower trustees to concoct approaches which can enhance the fund's performance.

The outcome of the study can likewise aid the Kenyan government in substantiating the influencing factors of the respective pension fund's performance. This will empower the legislature to set up appropriate regulations to enhance the sustainable performance of pension funds.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

The section tries to highlight the determinants of pension funds' performance and provides a discussion of the relevant theories that establishes the relationship between board diversity and firm's performance. Empirical literature review as well as a summary of literature is also outlined herein.

#### **2.2 Theoretical Review**

The study is guided by the Agency, Stakeholder, Stewardship and Resource dependency theories as discussed herein.

##### **2.2.1 Agency Theory**

The initiator of agency theory was Jensen and Meckling (1976) who introduced in their study, the possibility of separating ownership from control and gone ahead to point out the existence of conflict between owners (principals) and managers (agents) resulting into increase in agency costs. Abdullah and Valentine (2009) described Agency theory as the relationship amongst the principals and the agents. In agency theory, owners of the company delegate the running of the business to the executives. As an agent of the principal, an executive is morally responsible for the maximization of the shareholders' wealth (Davis, Schoorman & Donaldson, 1997).

The theory depicts a system in which oversight and executive management roles are clearly outlined and separated (Jensen & Meckling (1976). It foresees a fundamental problem arising from the anticipation of hidden knowledge arising from information asymmetry and hidden action by the self – interested agents (Schillemans, 2012) and

recommends that principals ought to embrace a touchy mix of instruments to hold their self-intrigued agents under wraps. Information asymmetry problems and divergences of interest among the two parties include a limited ability to select a reliable agent and to monitor and control his or her performance (Breton & Miller, 2009). Berger and di Patti (2002) agree that the segregation of control and ownership in a firm managed professionally may bring about managers applying inadequate work exertion, choosing inputs or outputs that suit their own inclinations or generally neglecting to maximize the shareholders' worth.

In an effort to counter these problems, Kulik (2005) in the Enron case, contends for the presence of agency culture is distinguishable from other cultures; where employees have a tendency to clarify their conducts as controlled by governance mechanisms.

### **2.2.2 The Stakeholder Theory**

The stakeholder theory was originally developed by Edward Freeman in 1984. Its focus is to strike a balance between the interests of corporation stakeholders and their fulfillment and targets on social relationships between a firm and its' stakeholders as opposed to agency relationships.

Stakeholders are defined as groups and individuals who either benefit or are harmed by and whose rights are disregarded or regarded by corporate actions. They consist of shareholders, employees, creditors, clients, suppliers, and the community at large. The main proposition of the stakeholder theory is that corporate organizations have the duty to guarantee that their actions meet the desires of all the stakeholders. Management ought not to just consider its shareholders in the process of decision

making, but any individual who is influenced by business choices. In differentiation to the established perspective, Freeman et al., (2004) highlights that the target of any organization is or should be the prosperity of the organization and all its principal stakeholders.

The critics of the stakeholder theory contend that the weaknesses of the theory lie on its consideration of non-human stakeholders such as the indigenous habitat and transient ones, for example future eras or potential casualties (Capron, 2003). The challenge of considering the indigenous habitat as a stakeholder is genuine in light of the fact that the vast majority of the definitions of stakeholders normally regard them as groups or people, subsequently barring the common habitat as an issue of definition since it is not a human gathering or community as seem to be, for instance, consumers or employees (Buchholz, 2004). Phillips and Reichart (2000) contend that only humans can be considered as organizational stakeholders and reprimand endeavors to give the common habitat the status of a stakeholder.

### **2.2.3 Stewardship Theory**

Stewardship Theory was long developed by Donaldson & Davis (1989). The theory has an underlying foundation in sociology and psychology and was modified as a hypothetical structure for researchers to examine their decision-making actions, and the executive performance that go about as unwavering stewards for principals (Davis, Schoorman, & Donaldson, 1997).

According to Schillemans (2012) he underlined the key contribution of stewardship theory as in its questioning of the pessimistic actions of the agency theory about human nature. Breton and Miller (2009) explain that agency theory is a conflict theory in which managers serve their own self-interest, are extrinsically motivated, have high

power separation, institutional utilization of forces and an external management cycle. On the other hand, Breton and Miller (2009), describes stewards as social, collectivists, trustworthy and pro-organization managers.

Stewardship theory emerges as a significant counterweight to agency theory. Despite the fact that the theory addresses a portion of the reductionist hypothesis of agency theory, it is static in nature as it considers the relationship between the principal and agent at one point in time and assumes zero learning of people as an aftereffect of their interactions. Dynamics are brought into the picture, by the introduction of the learning element that occurs within each and every agent when they interact with each other. It's contented that people learn during the interaction process and can alter their preferences, and not necessarily feels betrayed and frustrated.

#### **2.2.4 Resource Dependency Theory**

This theory was originally developed by Aldrich and Pfeffer (1976) but later formalized in 1978. It reiterates that the acquisition of organization resources should be through a network of contacts and the quality of firm's performance to be determined by the effectiveness and efficiency in bridging the network gaps. The theory illustrates success in organization as its capacity to maximize power by accessing rare and essential resources. According to Brown (2005), Board of directors assist firms in accessing critical resources that might some way or another be past the firms' scope. Boards are considered to be significant in securing the necessary resources, such as capital, knowledge and ventures in partners' arrangements. Waddock and Graves (1997), states that corporate board members' diversity has been observed to be a vital component in this hypothesis since it can prompt more extensive corporate networks and enhances financial performance.

Nevertheless, Resource dependency theory has its implications. First and foremost, corporate boards are viewed as a means of management of external dependency. The ramification of this is that the boards will mirror the firm's surrounding and that the directors will be carefully chosen to capitalize on the provision of the vital resources to the organization. Each executive may express varied linkages and resources to the board. Board structure will then speculate to reflect a coordination of the organization dependencies and the potentially acquired resources of its board members (Hillman et al, 2010). From the aforementioned discussion, it's clearly seen that unlike agency theory, resource dependency theory ignores alternatives of board activities like strategizing and giving advice.

### **2.3 Determinants of Pension Funds' Performance**

The determinants of pension funds' performance as identified include board of trustee's diversity, pension funds' assets, density of contributions and age of the contributors.

#### **2.3.1 Board of Trustees Diversity**

As indicated by Urwin (2008), a well-governed board of trustee tends to assign the regular issues to plan administrators and relies on the reporting frameworks to oversee the determination and claims resolution while allocating the time and resources available to issues like strategic investment and management that may influence the long-term integrity of the organization and payment of pension benefits. Useem and Mitchell (2000) explain that public sector pension plans are managed in various ways with governance strategies recognized as indicated by their size and board composition, investment decisions as structured by the trustees, the restrictions placed on their investments and whether the performance evaluations are autonomous or not.



### **2.3.2 Fund Assets**

The structure of pension plans has steadily changed from the defined benefit (DB) schemes to different kinds of arrangements in which the provision of pensions is upheld by assets, either in individual accounts or in cumulative schemes. The change has principally been motivated by governments trying to reduce the fiscal effect of the aging population and to diversify the sources of retirement income. One of the key findings is that numerous pension systems are currently in the process of backing assets. This transformation of pension funds infers that retirement incomes are now closely linked to these assets performance, emanating in members' exposure to the susceptibilities of speculation markets in determining the level of benefits they will ultimately get. Obviously, after the financial meltdown of 2008 there were potential consequences of this type of transformation (Hinz, Rudolph, Antolin & Yermo, 2010).

Bodie, Detemple, and Rindisbacher, (2009) argue that there is need to recognize that the assets of pension funds have significant contrasts compared with other types of aggregate ventures. This difference stems from the fact that pension funds have the objective of providing a replacement of income in retirement, while the alternative types of group investment are fundamentally concerned with maximizing short-term wealth of individuals. This definite difference in objectives leads to different time frames over which performance ought to be considered and distinctive attitudes to risk. However, in spite of these clear differences between pension schemes and other collective investments, there is no difference in the performance measures that are applied to evaluate the performance the pension funds and other types of investments.

The spectacular losses experienced by several pension funds subsequent to the commencement of the financial crisis in the late 2008 have been generally renowned and disputed. The Organization for Economic Cooperation and Development (OECD) indicates that there were approximately 20 percent in losses of assets value and about \$5.4 trillion in countries that were affected by the 2008 global financial meltdown (Antolin & Stewart, 2009). For instance, the returns that were realized from the pension funds in Latin America and Central Europe in 2008 were binary digit negative. Hinz et al (2010) however assert that the focus on nominal returns of short-term investments conceals the way that profits are only one of few determinants of pension fund's performance in its endeavor to provide retirement income to their member. Others factors consist of density of contributions, administrative and investment management costs, and the behavior of members when picking retirement age.

The other factors that drive pension benefits in an asset-backed setting have in recent years received much attention in research and strategy. For example, a variety of mechanisms have been designed by countries to reduce costs, incorporate the imposition of caps on fees, centralize collections and the use blind accounts, lotteries to assign new contributors among funds, and paperless transactions. Policy makers know about the available options but the challenge is to guarantee that the options picked will be implemented accordingly. Aggregate pension plans set up by employers and employee affiliations can as well be a viable approach in keeping low costs, particularly when the set up funds accomplish an adequate scale (Hinz et al, 2010).

### **2.3.3 Density of Contributions**

The density of contributions is additionally an imperative factor that has influenced the pension benefits in countries with large informal sectors. People with a low density of contributions are prone to low accumulated assets at retirement age, and subsequently low retirement incomes. Another vital factor that influences the pension fund's performance is retirement age. This is because, countries that allow people to retire earlier have shorter accumulation period thus members are likely to receive lower retirement incomes. Consequently, some governments have raised the official retirement age or introduced incentives to postpone retirement. In this regard, the capacity of financed individual account frameworks to deliver retirement income will be further tested in this aspect as life expectancy continues to increase in virtually all countries (Bodie et al, 2009).

### **2.3.4 Age of Contributors**

According to Sonnenfield (2002) there seem to be a general opinion concerning boards becoming less effective with increased average age of members. Nonetheless he contends that age often may be perceived as an asset because a person's age may reflect experience and maturity. Additionally, Milliken & Martins (1996) conclude that groups that care more about age diversity represented tend to have higher turnover rates. Moreover, the age diversity may lead to increased absence, lower performance and lessen communication.

## **2.4 Empirical Review**

Many studies in various fields have looked at the effect of board diversity on the firm's financial performance. Despite the fact that those studies have been conducted in a number of fields and nations, no study has investigated the correlation between

board diversity and financial performance of pension funds, even though they make a significant contribution as they reveal how board diversity influences performance, whether positively or negatively.

Darmadi (2010) sought to establish the correlation between board diversity and the financial performance of listed institutions on the Indonesian Stock Exchange (IDX). He determined the three demographic features of board members as age, gender and ethnicity as proxies of diversity. His study sample entailed 169 listed organizations on the Indonesian Stock Exchange (IDX) as at 31<sup>st</sup> December 2007 and used Ordinary Least Squares (OLS) regression. The results indicated that both Return on Assets (a measure of accounting performance) and Tobin's Q (a measure of market performance) had a significant negative correlation with gender diversity whereas nationality diversity had no influence on the performance of the firm.

Another researcher, Ujunwa (2012) explored the effect of characteristics of the corporate board on financial performance of listed Nigerian corporations. Those board features involved board size, board members' skills set, their nationality, gender, ethnicity and Chief Executive Officer (CEO) duality. His sample consisted of 122 listed firms in Nigeria between 1991 and 2008 and used Generalized Least Squares (GLS) regression to assess the six hypotheses formulated for the study whereas controlling the size and age of the firm. The results indicated that the size of the board, CEO duality and gender diversity were negatively correlated to performance of the firm while ethnicity, board nationality, and the total board members having qualification in PHD impacted positively on the firm's performance.

Smith et al (2005) deliberated on the effect of women in topmost administrative positions and board of directors on the performance of Danish firms. Their sample of study consisted of 2500 firms in Denmark observed between 1993 and 2001. The results indicated that the fraction of women in topmost administrative positions was positively correlated to firm's performance. Additionally, they highlighted that the positive effects of females in topmost administrative positions depended on their educational qualifications.

Wang and Cliff (2009) investigated the relationship between the minority representation of non-Anglo Australian males in the Australian corporate boards and the financial performance measured by Return on Assets and Return on shareholders' equity. Their study sample entailed 243 firms in Australia in 2003. The results revealed that the proportion of the non-Anglo Australian male directors on the board did not represent any significant impact on the Return on shareholders' equity and Return on total assets. They also established no association between racial and gender diversity on the financial performance of the firms.

Sanda et al (2005) studied the association between the mechanisms of corporate governance and financial performance of corporations in Nigeria. The researchers looked over board size (named as the total board members), board composition (named as the external board members) and the experience of topmost management. Their sample comprised of all firms quoted on the Nigeria Securities Exchange. Their findings showed that the composition of the board is to some extent positive correlated to the organization's performance. Additionally, they reported that a small sized board was effective up to a certain limit beyond which it becomes ineffective. This infers that larger boards exceeding 10 executives are inefficient. Furthermore, it emerged that firms with international chief executive officers as board members, outperformed those without international chief executive officers.

Locally, Wanyama and Olweny (2013) conducted a study to establish the effects of corporate governance on the financial performance of listed insurance companies in Kenya. More precisely, the study explored the impact of board size, board composition, CEO duality and leverage on financial performance of listed insurance companies in Kenya. The financial performance of the insurance firms was calculated using Return on Assets and Return on Equity and a descriptive research design was used. Their sample of study consisted of all the listed insurance companies on the Nairobi Securities Exchange as at December 2012. Data was collected both primarily and secondarily. Primary data was collected through administration of questionnaires to the personnel of the listed insurance companies while secondary data was obtained from the annual accounts for the period between 2007 and 2011. The analysis of data was through multiple regression models.

The findings showed a stronger connection amongst the practices of corporate governance and the companies' financial performance. Board size was established to be negatively associated to financial performance of listed insurance companies however board composition was positively correlated to financial performance. Similarly, there was a positive correlation of leverage and financial performance of listed insurance companies. On CEO duality, it emerged that that the separation of the duty of the Chief Executive Officer from that of the Chairman positively affected the financial performance of the listed insurance companies on the Nairobi Securities Exchange.

On the other hand, Aosa, Letting and Machuki (2012) tried to find out the board diversity influence on corporate performance in Kenya. The board diversity attributes included board size, board meetings, gender diversity and more specifically, the

influence women have as board members on financial performance. Their sample of study was 47 firms listed at the Nairobi Securities Exchange as at 31<sup>st</sup> December 2010. They collected data primarily through administration of semi-structured questionnaires to the board chairman and secretaries of the targeted companies and secondarily through the annual publications at the NSE, the 2009 NSE handbook and firms' annual audited accounts and reports. The data analysis was through multivariate regressions and descriptive univariate.

The study outcomes revealed statically significant positive relationship between female on the board, age, education, professional qualifications of the board members and Return on Assets (ROA). Age of board members to Return on Equity, Dividend yield or Price Earnings Ratio was found to be significantly positively correlated. However, the study showed statically significant negative correlation between Dividend Yield and women on the board and board study specialization, Return on Equity and women on board and education qualifications.

Aduda et al (2013) examined the relationship between board composition and the firm's performance of corporations listed at the Nairobi Securities Exchange. The board composition attributes include board size, the proportion of inside and outside directors and the role of CEO duality. The financial performance of the companies was measured through Tobin's Q ratio and Return on Assets (ROA) and descriptive statistics was used. Their sample size of study was all the companies quoted at the Nairobi Securities Exchange between 2004 and 2007. Data was collected secondarily from the audited annual financial statements and reports and data analysis was conducted through multiple regression model. The result of the study showed a positive correlation between board composition features and financial performance of the corporations listed at the Nairobi Securities Exchange.

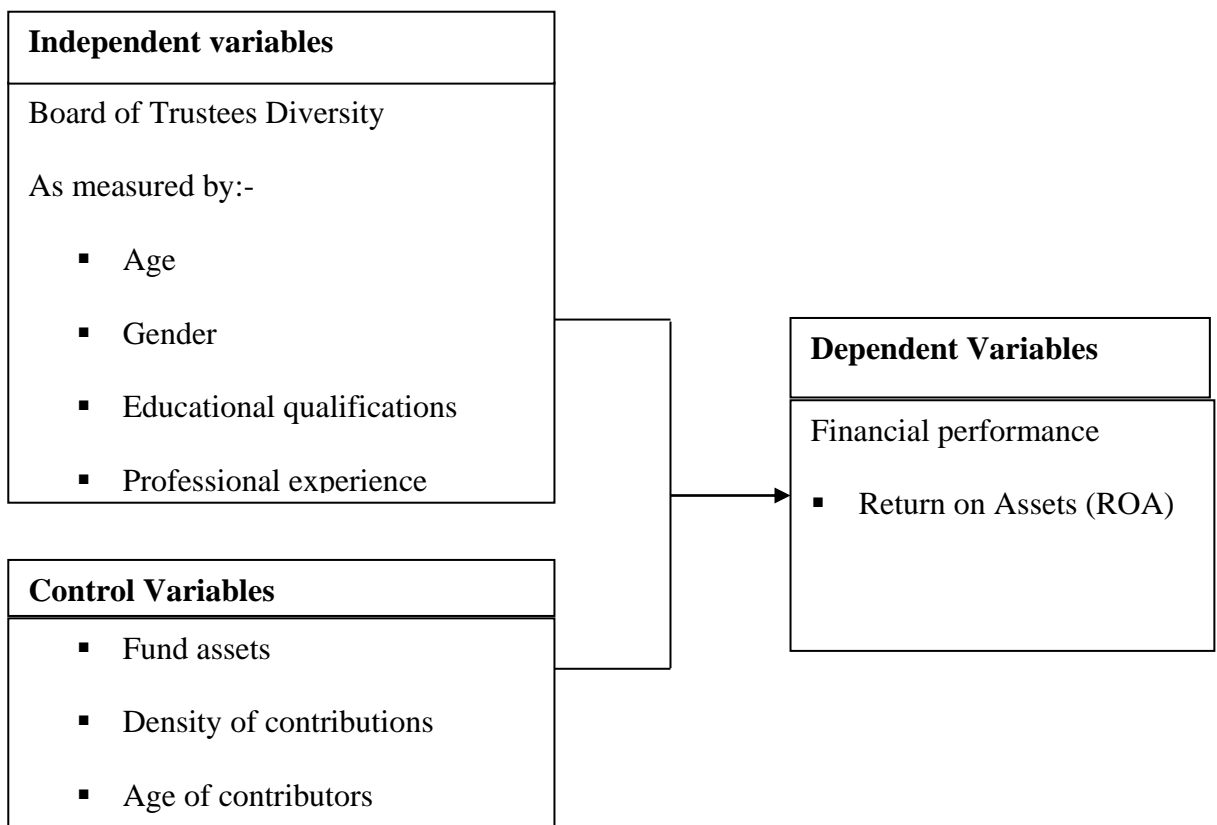
Neema and Donath Olomi (2012) also sought to scrutinize the board influence on the performance of micro finance institutions in Kenya and Tanzania. The board member attributes include external representation, universal source, education and gender. The financial performance of the Micro Finance Institutions was measured through Returns on Assets (ROA) and operational self-sustainability. The population of study consisted of banks, non-banks, financial institutions and non-governmental organizations that offer micro finance services while the sample size was 47 MFI's (23 Kenya and 24 Tanzania). Secondary data was collected from internal documents such as brochures, leaflets, board policies and board terms of reference to help in profiling the board members and performance reports. The findings showed a positive correlation between age of the board members and their ability to monitor and provide the board with its essential resources. It was also determined that the education level was positively correlated to performance but there was no effect of female directors on board.

Lastly, Barako et al (2006) looked at the association between corporate governance qualities and deliberate disclosure of listed corporations in Kenya. The researchers recognized the extent to which board composition (characterized as the total external board executives) and the existence of board audit committees' effect on organization's disclosure (characterized as the release of both financial and non-financial through annual statements beyond enforced requirements). The outcome regarding board arrangement showed a negative association between the existence of external board executives as well as deliberate divulgence of information. This suggests that external board members are with regards to persuading an organization to uncover information.



## 2.5 Conceptual Framework

This illustrates the relationship between the study variables. Board of trustees' diversity which is the independent variable is measured by age, gender, educational qualifications and professional experience while financial performance, which is the dependent variable, is measured by Return on Assets. On the other hand, the control variables consist of fund assets, density of contributions and age of the contributors as depicted in the diagram below:-



a) Conceptual framework

## **2.6 Summary of Literature Review**

The above analysis of empirical literature demonstrates that boards play a vital part in the pension industry. Like organizations, pension scheme boards are required by both law and RBA Act to oversee and advise managers so that their mission and objectives are met accordingly. Provision of resources is also important as boards comprise of directors with varying skill set, experiences and backgrounds. Board executives bring distinctive kinds of resources, like advice, counseling and facilitation of access to resources for example financing and connecting the firm to significant stakeholders or entities.

Resource dependency and Agency theorists argued that diversity of board executives is crucial to an organization for its accomplishment of good performance. Empirical literature evidence points out that the composition of board is critical and has both positive and negative consequences. Nevertheless, majority of these studies scrutinized the structure of board in relations to the proportion of external against internal board members. These studies did not concurrently look at other composition aspects such as gender, age, universal exposure, and educational background of board members. These other characteristics are similarly important as a measure of the monitoring function and resource provision by board members. Furthermore, no study has explored the effect of board diversity on the financial performance of pension funds in Kenya. This study sought to investigate this gap and get the opinion of the board members.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

The section portrayed the research methodology utilized in the study and defined the research design, study population, sample size and sampling procedures. It also outlined the data collection procedures and the models used for data analysis.

#### **3.2 Research Design**

Rajendra (2008) outlined research design as the bond and organization of conditions for collection and analysis of data in a way that purposes at conjoining significance to the research aim with economy in the procedure. He further argued that research design focuses on the structure of an enquiry, which leads to the minimization of the chance of drawing the wrong casual inferences from the data. This Study considered causal as it sought to examine the effect of board diversity on financial performance of segregated pension funds in Kenya. Moreover, the study was explanatory in nature as it established whether attributes such as professional experience resulted to change in performance of the pension funds.

#### **3.3 Population of the Study**

The general population is the whole range of a system of interest. According to Johnston and Vanderstoep (2009), population is the widespread of individuals to which the study can be generalized. As at 30<sup>th</sup> June 2016; the Retirement Benefits Authority (RBA) regulates 1318 registered pension funds in Kenya.

### 3.4 Sample Size and Sampling Procedures

For consistency purposes and to hold constant the administrator influence on schemes, 38 registered schemes administered by Liaison Financial Services was the sample size for our study as per the attached appendix I.

### 3.5 Data Collection

The study utilized secondary data which was extracted from the specific pension funds annual reports and accounts for the five-year period from 2010 to 2014. The fund managers, scheme administrators and trustees are usually the custodian of copies of the financial statements and it's a requirement by the RBA act for the registered schemes to file the annual accounts as returns. For the purpose of this study, these financial statements were sourced from the RBA website and the registered schemes for validity purposes. For the data to be sufficiently illustrative, the study reviewed secondary data for any five years' period relying upon its availability and access.

### 3.6 Data Analysis

A multiple regression model utilized for data analysis while the below regression model was used for regression analysis in SPSS:

Performance =  $f$  (*Board diversity attributes, Density of contributions, age of Contributors, Assets of pension funds*)

$$Y = \alpha + \beta_1(X)_1 + \beta_2(X)_2 + \beta_3(X)_3 + \beta_4(X)_4 + \beta_5(X)_5 + \beta_6(X)_6 + \epsilon$$

Where:

Performance: Is financial performance of the pension fund measured by Return on Assets (ROA) on the fund's returns which is computed as Net Income divided by Total Assets.

- X<sub>1</sub>: Is the Average age of board members and was measured by the correlation of variation of the board members ages.
- X<sub>2</sub>: Is the gender of the board members and was measured by the fraction of the female board members to the total number of board members.
- X<sub>3</sub>: Is the education level of the board members. The levels are categorized into: O' levels, A' levels, Diploma, Undergraduate, Masters and Doctor of Philosophy level.
- X<sub>4</sub>: Is the professional experience of the board members and was measured by correlation of variation of the period of experience of the board members.
- X<sub>5</sub>: Is density of contributions measured by contributions received by the contributors to the pension fund.
- X<sub>6</sub>: Is assets of the pension funds measured by assets acquired by the fund.
- $\alpha$ : Constant term
- $\beta$ : Regression coefficients
- $\epsilon$  Random error term

### **3.7 Inferential Statistics**

The T – tests at 95% confidence level was utilized to define the statistical significance of the constant terms, and the coefficient terms,  $\beta_0$ . The F tests was utilized to figure out if the regressions are of statistical importance at 95 % confidence level whereas coefficient of determination, and the Adjusted R squared were utilized to determine just how much variations in the dependent variables were described by variations in the independent variables.

## **CHAPTER FOUR**

### **DATA ANALYSIS, RESULTS AND DISCUSSION**

#### **4.1 Introduction**

In this chapter the findings of the data analysis are presented. The data of the sampled schemes was collected and analyzed in response to the objective of the study. The objective of the study was to investigate the Effect of Board of Trustees Diversity on the Financial Performance of Segregated Pension Funds in Kenya. A sample of 38 pension schemes that had invested in segregated funds had consistently used one fund manager over the period of the study and had been in existence for the last 5 years as at the end of 2014 was used. The findings presented in this chapter demonstrated the Effect of Board of Trustees Diversity on the Financial Performance of Segregated Pension Funds and illustrated further the extent to which each asset class contributed to the overall financial performance of the fund. The overall response rate was therefore 95%. The data was analyzed using descriptive analysis, correlation analysis and multiple linear regression analysis to answer the research question using SPSS version 16.

#### **4.2 Board Diversity**

Gender diversity, membership of women in the board was considered both as a board composition as well as board demographic characteristic issue and was treated as such in the analysis. Table 3 shows a summary of the board composition variables among the respondent firms. On the first column is the number of companies with each row indicating the relationship with the various variables listed on the first row. The other rows show percentages of the board composition variables. Results in Table 3 reveal that the board size ranges from 4 to 12 members. Most of the companies (25 per cent)

have 7 board members with the average being 9 members. This means that the board size among the listed firms in Kenya consist of an average of 9 board members. In other countries the board sizes vary. For example in Zimbabwe, by law, every company should have a minimum of two directors. According to a survey conducted by the World Bank, most companies have six or seven directors (Nganga et al, 2003). In Spain, the board size seems to be higher with an average of 12 board members among the listed firms (Castro, La Concha, Gravel & Periñan, 2009).

**Table 4.1: Frequency of Board Attributes (Composition)**

<b>Number of firms/ Board Members</b>	<b>Board Size</b>	<b>Women on Board</b>
0		57.5
1		25.0
2		15.0
3		2.5
4	2.5	
5	7.5	
6	0	
7	25.0	
8	5.0	
9	17.5	
10	20.0	
11	12.5	
12	10.0	
13	0	0
<b>Total</b>	<b>100</b>	<b>100</b>



From table 4.1 above gender diversity perspective, a majority of firms (57.5 per cent) had no female board member. Only 25 per cent of the firms had one woman board member with 15 percent of the surveyed companies having two board members. Thus, on average only 7 percent of all the board members were women among the Segregated Pension Funds. This is way below the recommended threshold of at least a third of either gender to be included in public organizations. The results in Table 4 show that there is an average of one (1) woman board member per Segregated Pension Funds. This means that most boards have one or no woman board member at all. Therefore, gender parity is an issue of concern among Kenya's Segregated Pension Funds. This however is comparable with other countries in the third world that boast of rather low composition, especially in the Middle East and North Africa region: Kuwait is one of the regional leaders with 2.7 percent of women directors, followed by Oman 2.3 percent, Bahrain 1 percent, United Arab Emirates (UAE) 0.8 percent, Qatar 0.3 percent, and Saudi Arabia 0.1 percent (Shkolnikov, 2011).

#### **4.2. Descriptive Analysis Results**

The results (table 4.1) indicate that a total of 41 occurrences of each variable were used in the study. An overall industry Financial Performance of Segregated Pension Funds. The objective of the study was to establish the relationship between The Effect of Board of Trustees Diversity on the Financial Performance of Segregated Pension Funds in Kenya. To achieve this, quantitative data was collected for each of the pension schemes and analyzed in two stages. First, tests of significance and descriptive statistics, such as correlations, the R-Square (Coefficient of Determination), Analysis of Variation (ANOVA) and Coefficients. The second stage was to determine the extent to which each asset class contributes to the overall

financial performance of the fund by estimating the relative importance of the regressors in the linear regression by performing Paired Sample T-Tests. The output and findings of the analysis have been presented in the tables below:

#### 4.2.1 Statistical Significance and Descriptive Statistics

Correlations between the dependent variable (Return on Assets) and the independent variables (weights of various asset classes) was determined. This analysis was to locate the critically important asset classes on which Return on Assets depend.

**Table 4.2: Correlations**

	Correlations	FP	Average age of board members	Gender of the board members	Education level of the board members	Professional experience	Density of contributions	Assets of the pension funds
Pearson Correlation	Financial performance	1	0.254	0.122	0.666	0.606	0.040	0.561
	Average age of board members	-0.136	1	0.143	0.153	0.134	0.218	0.156
	Gender of the board members	-0.242	0.143	1	0.102	0.250	0.300	0.112
	Education level of the board members	0.353	-0.153	0.102	1	-0.045	0.311	-0.034
	Professional experience	0.412	-0.242	0.253	-0.045	1	0.097	0.045
	Density of contribution	0.041	-0.209	0.309	0.311	0.090	1	0.025
	Assets of the pension funds	0.031	-0.412	0.0420	0.351	0.071	0.0631	1
Sig. (1-tailed)	FP	.	0	0.05	0.008	0	0.287	0.0675
	Average age of board members	0	.	0.018	0.014	0.023	0.001	0.003
	Gender of the board members	0.06	0.018	.	0.07	0	0	0.040
	Education level of the board members	0.007	0.012	0.06	.	0.255	0	0.052
	Professional experience	0	0.025	0	0.256	.	0.073	0.025
	Density of contribution	0.285	0.001	0	0	0.076	.	0.071
	Assets of the pension funds	0.043	0.004	0.009	0.047	0.031	0.034	-
N	Observations	100	100	100	100	100	100	

Source: Research Data

\*. Correlation is significant at the 0.05 level (1-tailed).

As shown in table 4.2 above, the correlation index for the relationship between Financial Performance and Professional experience and Education level of the board members, is 0.412 and 0.353 respectively. This result indicates that there is a weak positive correlation between FP and Professional experience and Education level of board members. The correlation indices for the relationships between FP and Gender of the board members and Average age of board members are -0.242 and -0.136 respectively, which are below -0.5. These results indicate that there is a weak and negative correlation between FP and Gender of the board members and Average age of board members.

#### 4.2.2 Regression Output: Model Summary

The impact of variation over time was determined by R-Square (Co-efficient of Determination) which explains how much of the variability of returns on investment was caused or explained by the asset weights over time.

**Table 4.3: Model Summary**

##### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics							
					R Square Change	F Change	df1	df2	Sig. F Change			
1	.764a	.583	.454	.0566482	0.476	40.943	5	203	Average age of board members	gender of the board members	education level of the board members	professional experience of the board members

*Source: Researcher 2016*

a. Predictor: (Constant), Average age of board members, gender of the board members, education level of the board members and professional experience of the board members

b. Dependent Variable: Financial Performance of Segregated Pension Funds

From table 4.3, the value of R-square is 0.583 which explains how much of the variation in the value of the dependent variable (Return on Asset) is explained by the regression model. Regressing returns on asset allocation gives an R-square of 0.583, which indicates that approximately 58% of the variation in returns on Investment can be explained by the allocation in the different asset classes.

#### 4.2.3 Regression Output: Analysis of Variation (ANOVA)

**Table 4.4: Analysis of Variation**

<b>Model</b>	<b>Sum of Squares</b>	<b>Df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
1 Regression	.130	9	.014	4.511	.003a
Residual	.093	29	.003		
Total	.223	38			

From table 4.4, the linear relationship among the variables in the regression was determined by examining the Analysis of Variance (ANOVA) results obtained from the analysis. The value of F was found to be statistically significant at a level of less than 0.05, suggesting that there is a linear relationship among the variables.

#### 4.2.4 Regression Output: Correlation Coefficient

**Table 4.5: Coefficients**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta	6.601	.000
1 (Constant)	.909	.138			
Average age of board members	-1.561	.558	-.379	-2.800	.009
Gender of the board members	-.870	.539	-.214	-1.614	.117
Education level of the board members	.088	.285	.035	.238	.004
Professional experience of the board members	.873	.166	.867	5.081	.000
Density of contributions	0.285	0.001	0	0	0.076
Assets of the pension funds	0.043	0.004	0.009	0.047	0.031

*a. Dependent Variable: Financial Performance of Segregated Pension Funds*

Therefore the general equation will be as follows:-

$$Y=0.909-1.561X_1-0.870X_2+0.88X_3+0.873X_4+0.285X_5+0.043X_6$$

From table 4.5, the value of the constant can be determined by studying the results of the coefficients. Gender of the board members and Professional experience of the board members predictors are statistically significant at 5%. From the beta weights in the regression results, it shows that education and Professional experience of the board members has great impact to the board diversity thus affecting performance of Pension funds in Kenya (.088) and (.873) Average age of board members and the least score of (-1.561).

### **4.3 Interpretation of the Findings**

From the analysis, the asset classes that had the most impact on the financial performance of the fund were Government Securities and cash Deposits. These had a moderate negative correlation with the overall performance of the funds. This finding was in agreement with the ANOVA analysis in Table 4.3.1 and coefficients analysis in Table 4.4.1 the analysis found that there is a linear relationship between Returns on Assets and Cash Deposits, Government Securities, Corporate bonds, and Other Investments had a similar relationship but the strength of the correlation was found to be weak. Only fixed deposits was found to have a positive correlation with fund performance but the relationship was weak.

R-Square (Co-efficient of Determination) was determined to establish how much of the variability of fund returns can be caused or explained by asset allocation over time. The R Square and the Adjusted R Square values which are 58.3% and 45.4% respectively show that the weighted combination of the predictor variables explained approximately 58% of the variance of the fund returns the remaining 42% is explained by other factors such as asset class timing, security selections and manager selection. The R Square value also shows that the fund managers for the schemes under analysis adopt an active approach to management of the funds. Active management of funds approach is adopted because of the quantitative assets restrictions placed by the Retirement Benefits Authority and also adopted by the trustees in their investment policies.

This finding is similar to findings by Omondi (2013) which showed that 28% of the return difference was explained by the asset allocation. The increase of about 30% could be attributed to increased awareness of the pensioners on the need for trustees to

increase value of their investments. This has increased pressure on the trustees to actively manage pension funds to increase fund value. In addition, Retirement Benefits Authority introduced Trustee Development Programme Kenya (TDPK) which is aimed at building capacity of the trustees in order to increase pension fund values. RBA has made it mandatory for each scheme to train all trustees in order to achieve this objective.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter provides a summary, conclusion and recommendations of the study. The study intended to address the research question: What is the Effect of Board of Trustees Diversity on the Financial Performance of Segregated Pension Funds? Secondary quantitative data was collected and analyzed using SPSS in order to satisfy the objectives of the study. The following tests were carried out on the data: Correlation, R Square, ANOVA and Coefficients of correlation. The findings of the analysis have been documented and have formed the basis for this chapter. This chapter presents a summary of the findings, the conclusion and the recommendations of the study.

#### **5.2 Summary**

The objective of the study was to establish the Effect of Board of Trustees Diversity on the Financial Performance of Segregated Pension Funds. From the findings of the analysis, there is a linear correlation between fund performance and weights of asset classes. This was demonstrated by the results of Correlation, ANOVA and Coefficient analyses. Correlation was found to be strongest between fund performance and portfolio weights of Cash Deposits, Government Securities, property and quoted shares. Further test was performed by analyzing the data using R-Square. The R-Square of the data was found to be 58.3% which indicate that differences in the fund returns were explained by approximately 58% of the investment policy. The remaining 42% was explained by other factors such as assets selection, timing and manager selection.



### **5.3 Conclusion**

The objective of the study was to establish the Effect of Board of Trustees Diversity on the Financial Performance of Segregated Pension Funds in Kenya. From the study it was established that there is a linear correlation between financial performance and professional experience and educational level of the board executives. From the findings of the study the Professional experience and Education level of the board members, is 0.412 and 0.353 respectively. This means that Professional experience and Education level of the board members is an important factor in financial performance of segregated pension funds.

### **5.4 Recommendations for Policy**

From the findings of the study the Professional experience and Education level of the board members, is 0.412 and 0.353 respectively. The researcher recommends that for Board of trustee to be effective it must be run by professional with extensive experience in their field of specialization.

Educational level of the board members must be high for them to be able to formulate good policies. From the beta weights in the regression results, it shows that education and Professional experience of the board members has great impact on board diversity thus affecting performance of Pension funds in Kenya (.088) and (.873) Average age of board members and the least score of (-1.561). Therefore education and professional experience plays an important role in management of Pensions funds. If Pensions funds are run by inexperienced and lowly educated persons then their performance will be low. The study recommends recruitment of highly educated and experienced professional to manage Pensions funds.

The study also recommends the balance of gender and youth in the Board of Trustee for them to develop skills of policy formulation. Most board of trustee does not include young people and women due to their limited experience. Exposing them to policy formulation will sharpen their skills.

The study finds that there is need for RBA to relax on the quantitative asset restrictions which limits the fund managers' ability to make investment decisions based on the risk return analysis. Fund managers should be allowed to fully exercise active management of the funds without strictly adhering to the investment guidelines provided by RBA, but only use them as a guide. This is because 58% is dependent on the investment policies.

### **5.5 Limitations of the Study**

The confidentiality of data being exposed to the researcher. Availability of more data would have given a better representation of the population given analysis of a larger sample. The study was restricted by conversion of schemes from DB to DC schemes as per government policy implementation in June 2010. This caused a variance in the Fund value of various schemes hence causing inconsistency in the Fund values.

The study was restricted to data of pension funds managed by few Fund managers. This was to ensure consistency in valuation of the investments. Different managers adopt different valuation and performance calculation methods. Data collection and therefore analysis was restricted to schemes under managers who use similar valuation and performance calculation methods.

The study was restricted to analysis of returns of segregated retirement benefit schemes which account for only 40% of the retirement benefits schemes in Kenya. The balance of 60% invests in guaranteed funds issued by insurance companies whereby it is difficult to determine the asset allocation for each of the guaranteed funds since it is not a statutory disclosure requirement under the Insurance Act.

### **5.6 Suggestions for Further Studies**

A study on the effect of asset allocation on the financial performance of other financial sectors and how it compares to the retirement benefits sector. A similar study should be carried out on retirement benefits schemes in the East Africa Region and establish how it compares to the study carried out in Kenya. A similar study should be carried out on retirement benefits schemes that have invested in guaranteed funds issued and managed by insurance companies and Individual Pension Plans to determine if the same conditions hold if they are included in the sample to be studied.

## REFERENCES

- Adams R, Ferreira D. (2007).A theory of friendly boards. *The Journal of Finance*; 62(1), 217-250.
- Adua, J. Chogii, R., Obara, M. P. (2013). An empirical test on competing corporate governance theories on the performance of firms listed at the Nairobi Securities Exchange. *European Scientific Journal*; 9(13), 107-137
- Barako, D., P. Phil Hancock, & H. Izan. (2006). Relationship between Corporate Governance attributes and Voluntary Disclosures in Annual reports: The Kenyan Experience. *Financial Reporting, Regulation and Governance*; 5(1), 26.
- Brancatto, C. K., & Patterson, J. (1999). Board diversity in US Corporations. *In the Conference Board*.
- Carter, D. A., Simkins, B. J., & Simpson, W. G. (2003). Corporate governance, board diversity, and firm value. *Financial review*; 38(1), 33-53.
- Carton, R. B. (2004). Measuring organizational performance: an exploratory study. *Athens, Georgia: The University of Georgia*, 1-15.
- Darmadi, S. (2010). Board Diversity and firm performance; *The Indonesian Evidence*; 1(9), 524-539.
- Forbes, D. P., & Milliken, F. J. (1999). Cognition and corporate governance: Understanding boards of directors as strategic decision-making groups. *Academy of Management Review*; 24(3), 489-505.

- Harrison, D.A., & Klein, K.J. (2007). Diversity Constructs. *Academy of Management Review*; 32(4), 1199-1228.
- Jackson, S. E., Joshi, A., & Erhardt, N. L. (2003). Research on team and organizational diversity: SWOT analysis and implications. *Journal of Management*, 29, 801 – 830.
- Jensen, M., Meckling, W., (1976). Theory of the firm: managerial behavior, agency costs and ownership structure. *Journal of Financial Economics* 3, 305-360
- Johnson, J. L., Daily, C. M., & Ellstrand, A. E. (1996). Boards of directors: A review and research agenda. *Journal of Management*, 22(3), 409-438.
- Kakwani, N., & Subbarao, K. (2007). Poverty among the elderly in sub-Saharan Africa and the role of social pensions. *The Journal of Development Studies*, 43(6), 987-1008.
- Lakonishok, J., Shleifer, A., Vishny, R. W., Hart, O., & Perry, G. L. (1992). The structure and performance of the money management industry. *Brookings Papers on Economic Activity. Microeconomics*, 339-391.
- Letting', N., Aosa, E., Machuki, V. (2012). Board diversity performance of companies listed in Nairobi Stock Exchange. *International Journal of Humanities and Social Science*. 2, 172-180
- Marimuthu, M. (2008). Ethnic diversity on board of directors and its implications on firm financial performance. *Journal of International Social Research*. 1, 2-15.

- Milliken, J. & Martins, L. (1996) Searching for Common Threads: Understanding the Multiple Effects of Diversity in Organizational Groups. *The Academy of Management Review* 21(2), 402-433.
- Neema, M., Olomi, D., (2012). The effects of boards on the financial performance of microfinance institutions; evidence from Tanzania and Kenya. *Research Report* 2012.
- Pfeffer, J. & G. Salancik. (1978). *The External Control of Organizations, a Resource-Dependence Perspective* (New York: Harper & Row).
- Roosevelt, T. (2001). Beyond race and gender. *New York: American Management Association*.
- Rose, C. (2007). Does female board representation influence firm performance? The Danish evidence. *Corporate Governance: An International Review*, 15: 404-413.
- Sanda, A., A. Mikailu, & T. Garba. (2005). Corporate governance mechanisms and firm financial performance in Nigeria. *African Economic Research Consortium*. 47
- Schillemans, T. (2012). Moving beyond the clash of interests on stewardship theory and the relationship between central government departments and public agencies. *Public Management Review*. 15. DOI.
- Smith, V. L. (1962). An experimental study of competitive market behavior. *The Journal of Political Economy*, 111-137.

- Stewart, F., & Yermo, J. (2009). Pension fund governance. *OECD Journal: Financial Market Trends*; 2, 1-42.
- Stewart, F., & Yermo, J. (2009). Pensions in Africa. *OECD Journal*; 18-20.
- Thomas, A., & Tonks, I. (2001). Equity performance of segregated pension funds in the UK. *Journal of Asset Management*, 1(4), 321-343.
- Tonks, I. (2001). *Fund manager performance of segregated UK pension funds*. Leverhulme Centre for Market and Public Organization, University of Bristol, Department of Economics.
- Tversky, A., & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. *Journal of Science*, 185(4157), 1124-1131.
- Ujunwa, A., (2012). Board characteristics and the firm financial performance of Nigerian quoted firms. *International Journal on Business in Society*. 12(5), 656-674.
- Urwin, R. (2008). Gordon L. Clarkn. *Journal of Asset Management*, 9, 2-21.
- Verspaandonk, R., & Holland, I. (2003). Changes in the Australian Public Service 1975-2003. Information and Research Services, Department of the Parliamentary Library.
- Wang, B.C., Cliff, B., (2009). "Is there a "business case" for board diversity?" *Pacific Accounting Review*; 21(2), 88-103.
- Wanyama, D.W., Olweny, T., (2013). Effects of corporate governance on the performance listed insurance firms in Kenya. *Public Policy and Administration Research*; 3(4).

## APPENDICES

### *Appendix I: List of registered pension schemes administered by liaison financial services*

1. African Diatomite Industries Staff Retirement Benefits Scheme
2. Baringo Teachers SACCO Society Limited SRBS
3. Chai Co-operative Savings and Credit Society Ltd. Staff Retirement Benefits Scheme
4. Co-op trust Investment Provident Fund
5. Coast Development Authority SPF
6. Development Bank of Kenya Limited SPF
7. G4S Kenya Limited Staff Retirement Benefits Scheme
8. GDC SRBS
9. Gulf African Bank SRBS
10. Kenya Utalii College Staff Pension Scheme
11. Kenya Industrial Research and Development Institute Staff Retirement and Group Life Assurance Schemes.
12. Kenya College of Accountancy Staff Retirement Benefits Scheme
13. Kenya Kazi Limited Staff Pension Scheme
14. Kenya Bixa Limited Staff Retirement Benefits Scheme
15. Kilifi Teachers Co-operative Savings and Credit Society Limited Staff Provident Fund
16. Liaison Personal Retirement Plan
17. Liaison Staff Provident Fund



18. Marryat & Scott Kenya Limited Staff Pension and Life Assurance Scheme
19. National Museums of Kenya Staff Retirement Benefits Scheme
20. Nairobi Baptist Church SRBS
21. Nairobi Java House SRBS
22. National Museums of Kenya Staff Pension Scheme
23. Rural Electrification Authority SRBS
24. Schindler Limited Staff Pension Scheme
25. Seven Four Eight Air Services (K) Limited SPF
26. Sian Agriflora Staff Pension Scheme
27. Sollatek Electronics Kenya Staff Provident Fund
28. Southern Cross Safaris Limited Staff Retirement Benefits Scheme
29. Sovereign Group Limited SRBS
30. Taita Taveta Teachers Co-operative Savings and Credit Society Ltd. SPF
31. The Kenyan National Library Service Board Staff Retirement Benefits Scheme
32. The Standard Group Limited Staff Pension Scheme
33. Transnational Bank Limited Staff Pension Scheme
34. Tropical farm management-SPF
35. Undugu Society Staff Pension Scheme
36. Venus Tea Brokers SPF
37. W.E.C Lines (Kenya) Limited SPF
38. United Nations Co-operative Savings

***Appendix II: Categorization of Education level***

<b>1.</b>	O' Level / Kenya Certificate of Secondary Education
<b>2.</b>	A' Level
<b>3.</b>	Diploma Certificate
<b>4.</b>	Undergraduate Level
<b>5.</b>	Masters Level
<b>6.</b>	Doctor of Philosophy (PHD)