EFFECT OF FIRM CHARACTERISTICS ON THE FINANCIAL PERFORMANCE OF PENSION FUNDS ADMINISTRATORS IN NIGERIA

BY

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MSc./Admin/8906/2009-2010

BEING A DISSERTATION SUBMITTED TO THE SCHOOL OF POSTGRADUATE STUDIES OF THE AHMADU BELLO UNIVERSITY, ZARIA IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER OF SCIENCE DEGREE IN BUSINESS ADMINISTRATION

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AUGUST, 2016

DECLARATION

I hereby declare that this research titled "Effect of Firm Characteristics on the Financial Performance of Pension Funds Administrators (PFAs) in Nigeria" is the product of my research effort and to the best of my knowledge; this work has not been submitted elsewhere for the award of any degree in any institution of learning in Nigeria and elsewhere. All works and articles consulted have been duly acknowledged in the references. In addition, I take responsibility for any errors found in the work.

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CERTIFICATION

This is to certify that this thesis titled **"Effect of Firm Characteristics on the Financial Performance of Pension Funds Administrators (PFAs) in Nigeria"** by Ovosi, Bilkisu Mohammed (M.Sc./Admin/8906/2009-2010) meets the regulations governing the award of degree of Masters of Science in Business Administration of the Ahmadu Bello University, Zaria. Hence, it is approved for its contribution to knowledge and literary presentation.

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DEDICATION

I dedicate this project to my adoring family.

ACKNOWLEDGMENT

In the name of Allah the Most Beneficent the Most Merciful, All praise is due to Allah, the Lord of the worlds, prayers and peace be upon our Noble Prophet Muhammad (SAW), His servant and messenger. All praise is to Almighty Allah, we have no knowledge except what He has taught us.

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ABSTRACT

The divergent opinion on the determinants of the financial performance of pension funds administrators has been an ongoing issue. Academic scholars overtime have been groping with what factors drive the financial performance of pension funds administrators which still remains unestablished. Hence, this study determines the effect of firm characteristics on the financial performance of pension funds administrators in Nigeria. The study employed correlational research design while the population of the study is the 20 registered and licensed Pension Funds Administrators in Nigeria and a sample of eleven (11) PFAs were conveniently selected after filter was applied. A multiple regression was adopted as a technique of data analysis of the study. The findings reveal that firm size is statistically insignificant in influencing the performance of PFAs, while firm growth, institutional shareholding, managerial shareholding and leverage have significant negative impact on the performance of PFAs. The study recommended among others that, the Management of PFAs should increase their net assets in order to expand their size and improve performance. Again, as more levered PFAs tend to have better performance, their Management should use less equity financing and increase debt to improve their performance.

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CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Many countries around the globe including Nigeria have experienced rapid establishment and growth of pension funds. The growth of these institutions is one development that countries have given considerable attention because of the sensitivity of the transactions involved in pension funds. Pension funds act as an important stimulus to capital markets in most countries where they exist through financial intermediation. They tend to complement, and hence stimulate development of capital markets, while acting as substitutes for banks. Their growth is also the consequence of a number of non-financial and demand-side features (Davis, 2000).

The need for better managed pension funds in many countries was necessitated by the growing population which in many cases translated to high rate of employment around the world. Also, most countries are experiencing increasing longevity in life expectancy and reduced fertility rates that seem to threaten the sustainability of the traditional pay-as-you-go pension systems. The pension contributions from the working population will not be sufficient to support the elderly. In response, countries are increasingly shifting their pension systems toward partial or full funding. In addition to the main purpose of coping with demographic pressures and unsustainable fiscal positions, other motivations for countries to reform their pension systems often include the hope that funded pensions will contribute to economic development by promoting national savings and capital market development (Meng & Pfau, 2010).

It is only natural for the state to make provision for the welfare of the aged especially as they engage most of their active, useful and youthful stage in life to the service of the nation state. The need to cater for the well-being of retirees after disengagement from their occupations

informed the basis of a gradual contribution that are accumulated and provided in lump-sum to the retired so as to sustain life to the end. In this regards, government has imposed pension laws to assist employees and the economy at large. The dual contributions of the concerned parties which are made on monthly basis accumulates to a huge sum of money that can be invested for future use, fruitful yields and also the growth of the economy. Thus specialized professionals are engaged to manage these funds through specialized institutions that are basically concerned with retirement related savings.

Pension funds perform diverse activities that are beneficial to both individuals and the economy at large. For instance, the funds induce capital and financial market development through their substituting and complementary roles with other financial institutions, specifically commercial and investment banks. As competing intermediaries for household savings and corporate financing (Impavido, Musalem, & Tressel, 2002), pension funds foster competition and may improve the efficiency of the loan and primary securities markets. This results in a lower spread between lending rates and deposit rates, and lower costs to access capital markets. On the other hand, Davis (2005) argues that pension funds may complement banks by purchasing long-term debt securities or investing in long-term bank deposits. Other potential impacts from the growth of pension funds include an inducement toward financial innovation, improvement in financial regulations and corporate governance, modernization in the infrastructure of securities markets, and an overall improvement in financial market efficiency and transparency (Davis, 2005). Such impacts should ultimately spur higher long-term economic growth.

The performance of pension funds is very important as they play a very significant role in the economy of any country as they are designed to assist the retired. They are also sustained by administrative fiat by the government otherwise workers will not willingly accept it. There is need for pension funds to engage in proper management of the resources entrusted to them.

According to Pablo et al, (2009) pension funds need to measure their financial performance against long term optimal benchmarks. Some of the parameters that may be important in measuring the financial performance include: The presence of other sources of retirement income, including the income from public retirement schemes; the rate of contributions; the target replacement rate and its downside tolerance as well as a matrix of correlations between labour income and equity returns.

Prior to 2004, the Nigerian pension industry practiced the old defined-benefit system (in which retirement benefits are fixed) which are paid from the employer's current revenue or by government out of current taxes. This scheme was burdened with a lot of problems and increasingly became unsustainable. The huge deficit, arbitrary increases in salaries and pension along with poor administrative structure brought about the need for pension reform (Akhiojemi, 2004). The reform led to the setting up of a private system where employees fund their own retirements through compulsory savings. This is a fully funded, define contributory scheme that necessitates the employer paying into the pension account a minimum of the employee's 8.0% of his pensionable salary to the same account while the government pay 10% (revised in 2014) to make a total of 18% minimum of the pensionable salary (Pension Reform Act, 2014). The contributions are deducted and transferred into the relevant retirement savings account managed by Pension Fund Administrators (PFAs) and Pension Fund Custodians (PFCs). (PENCOM 2004). While PFAs invest the contributions in Government, and Corporate bonds, Shares, Bank Deposits and Certificates as well as Open Ended Investment Funds, among others, the PFCs hold the assets and funds of the pension funds (PENCOM 2004).

PFAs are licensed by PENCOM under the act to Open Retirement Saving Account (RSA), to Invest and manage pension funds and assets in accordance with the provision of the Act, to Maintain books of account relating to pension funds managed by it; to provide regular

information on investment strategy, returns and other performance indicators to PENCOM and employees and the Payment of retirement benefits in accordance with the provision of the Act. On the other hand, Pension Fund Custodians (PFCs) are charged by the PENCOM Act 2004 with the sole responsibility of holding in custody, pension funds and assets for the Pension Fund Administrators (PFAs). The PFC has the responsibilities of receiving the total contributions remitted by the employer within 24 hours and notify the PFA of same and hold the pension assets in safe custody on trust for the employee and beneficiaries of the RSA; Settling of transactions and undertaking activities relating to the administration of pension fund investments including the collection of dividends and executing relevant proxy in favour of the PFAs for the purpose of voting in relation to the investments. The PFCs provides some control over the activities of the PFAs and provides a hedge against unauthorized access or trading. The custodian is in no way empowered to utilize any pension fund assets in its custody to meet its own financial obligations or that of the third party. However, the more important reason as stressed by Dostal, 2010 and Ogwumike 2008 is that the PRA 2004, should follow the Chilean model of providing long term fund to develop the financial market and enhance economic growth.

The quantum of accumulated money needs to be efficiently utilized for a defined purpose. Hence, the need for sustainability and moral responsibility in safeguarding public funds has imposed a responsibility on the government to regulate and play oversight function in ensuring the attainment of set goals of the funds. Consequently, it becomes pertinent to ascertain the factors that can be utilized for determining performance of Pension Funds Administrators as it remains a global challenge confronting the government of both developed and developing nations of the world. In view of the foregoing, the following proxies of Return on Investment (ROI) viz: firm size, level of leverage, firm growth and ownership structure are used as the determinants of performance of Pension Fund Administrators in Nigeria.

1.2 Statement of the Problem

There are divergent opinions on the nature and number of factors that drive the performance of Pension Funds Administrators. Some scholars (Njuguna & Arnold (2010); Marshall, (1961); Yoon (2004); and Maja & Josipa (2012)) considered the firm size, corporate governance; cash on hand, level of leverage, firm specific risk, firm growth, productivity and tangibility as the determinants of PFAs' performance. Others have also included total asset of a firm in determining its influence on the firm performance. Some researchers have also considered the effects of worker representation (in unions and work councils), level of productivity, quality of services and innovative work practices on firm performance. In addition, specific factors of a firm and or macroeconomic factors are considered to be determining the performance of firm. These studies however, still remains inconclusive as to what actually drives the performance of Pension Funds Administrators, hence, the need for the present study.

Several literatures (Abiodun 2013; Vijaykuman & Tamizhselvan 2010; Bhatacharya & Arunmina 2009 and Baumol 1962) among other factors used firm size as an important factor that stimulates the financial performance of a firm. It is argued that larger firms may use the advantage of their size to gain some benefits in their business relation while others (Obradovich & Gill 2013; Yang & Chen 2009 and Singh & Whittington 1975) are of the view that the size of a firm has no effect on the performance of a firm. Therefore, it is expected that a close link exists between the size of a firm and the market power and the inefficiencies that exist to lower the performance of a firm. However, to what extent does the firm size affects the performance of Pension Funds Administrators in Nigeria?

The question on whether an appropriate mix of equity and debt in financing a firm's investment profile, really matters. This has been a subject of intensive theoretical modelling and empirical examination over the years having its tenet in the implication of such a mix on corporate

performance. The capital structure decision reflects judgment and the assessment of a highly uncertain future management degree of risk aversion and may affect the firm's financial policy. Thus, the change in capital structure that is caused by an increase or decrease in the ratio of debt to equity is referred to as financial leverage and defining the effect of an appropriate financing means or mix on a firm's performance and what condition is the choice of capital structure relevant in determining its performance becomes imperative. Thus, this study examines the effect of leverage on the financial performance of PFAs in Nigeria.

The economic growth or increase in share value of a firm is another factor that is expected to have influence on the performance of a firm. This positions the firm to have a competitive advantage over its competitors in the financial market. The extent to which the economic growth of a firm affects the investment performance of a firm remains a challenge to financial managers and researchers. Therefore, this study is set to fill the obvious gap of finding the effect of economic growth on the financial performance of PFAs in Nigeria.

The effect of ownership structure and concentration on the performance of a firm is another important issue in the literature of finance theory, for previous empirical studies examining the relationship between the performance of a firm and ownership concentration and structure have produced mixed results. Some researchers (Yana 2010; Rauh 2006 and Demsetz & Villalonga 2001) reveal a positive relationship between ownership concentration and firm performance through reduction in monitoring costs, while some studies (Ward 2011; Forrester 2010; Gursoy & Aydogan 2002 and Rajan & Zingales 1995) find no effect of ownership concentration on accounting profits, and share market value of a firm. Most researches (Obradovich & Gill 2013; Meng & Pfau 2010; Bhattacharya & Arunima 2009; Bridgen & Meyer 2008;; Davis 2005, Harold & Belen 2001 and Armstrong, Kervenoael, Li & Read 1998) on ownership structure and firm performance have been dominated by studies conducted in developed countries.

However, there is an increasing awareness that theories originating from developed countries may have limited applicability of models from developed nations to emerging markets like Nigeria because of the differences in political factors, economic and institutional conditions. Consequently, this study examines ownership structure and financial performance of PFAs in Nigeria.

Despite the studies carried out on performance of organizations and pension funds, there are few studies (to our knowledge) that have established the factors that determine the performance of pension funds administrators in Nigeria. Although, they did not combine both the micro and macroeconomic variables. Pension Funds Administrators are a unique type of organization because they hold long term liabilities which belong to beneficiaries. This study as such, seeks to update the findings of previous studies and to establish the determinants of the performance of Pension Funds Administrators in Nigeria in order to bridge the identified gaps.

Again, it has been observed that majority of studies linking firm characteristics and performance adopted qualitative methodologies such as chi-square and simple percentages to analyse responses. This study therefore utilizes parametric tool of analysis. Thus, panel multiple regression to achieve reliability and validity of statistical inferences derivable from the result of the study. Against this backdrop, the present study attempted to answer the question, what are the effects of firm characteristics on the financial performance of Pension Funds Administrators (PFAs) in Nigeria?

1.3 Research Questions

For the purpose of this study, the following research questions are stated.

i. To what extent does the firm size affect the performance of Pension Funds Administrators in Nigeria?

ii. To what extent does firm leverage affect the performance of Pension Funds Administrators in Nigeria?

iii. To what extent does firm growth affect the performance Pension Funds Administrators in Nigeria?

iv. To what extent does managerial shareholding affect the performance of Pension Funds Administrators in Nigeria?

v. To what extent does institutional shareholding affect the performance of Pension Funds Administrators in Nigeria?

1.4 Objectives of the Study

The main objective of the study is to assess the effects of firm characteristics on the financial performance of Pension Funds Administrators in Nigeria. Other specific objectives include to:

i. Determine the effect of firm size on the performance of Pension Funds Administrators in Nigeria.

ii. Examine the effect of firm leverage on the performance of Pension Funds Administrators in Nigeria.

iii. Assess the effect of firm growth on the performance of Pension Funds Administrators in Nigeria.

iv. Evaluate the effect of the contributions of managerial shareholding to the performance of Pension Funds Administrators in Nigeria.

v. Establish the effect of institutional shareholding on the performance of Pension Funds Administrators in Nigeria.

1.5 Statement of Hypotheses:

In line with the objectives of the study, the following hypotheses have been formulated and tested in null forms:

Ho_1: The size of a firm has no significant impact on the performance of the PFAs in Nigeria.

Ho_2: The leverage level of a firm has no significant impact on the performance of the PFAs in Nigeria.

Ho_3: Firm growth has no significant impact on the performance of the PFAs in Nigeria.

Ho_4: Managerial shareholding of PFAs has no significant impact on the performance of the PFAs in Nigeria.

Ho_5: Institutional shareholding has no significant impact on the performance of the PFAs in Nigeria.

1.6 Significance of the Study

Examining the key determinants of performance of PFAs in Nigeria and their magnitude is a critical factor for the development and sustainability of the Pension Funds Administrators in Nigeria and the New Pension Scheme in general because of the likely impact of such factors on the wealth of the pensioners and the overall industry. The study would be of significance to existing and potential stakeholders as it will enable them to examine and understand the link between the key determinants of performance identified and their effects on the financial performance of the PFAs in Nigeria. This will assist in identifying the appropriate factors in evaluating the performance of the PFAs before the selection of any PFA to manage the pension contribution of both existing and prospective pensioners.

The study is expected to be relevant to industrialists in the area of identifying the problems and prospects associated with the defining factors of performance of PFAs as well as ascertaining the best mix of determinants that will enhance its efficiency and value for the attainment of the

set goals. The findings of this study would also assist the management of PFAs in making financial and operational decisions that are expected to improve the performance of PFAs.

The study will contribute in filling the gap of existing body of knowledge in identifying the appropriate bases of performance of PFAs and the magnitude of their influence on the pension industry in Nigeria. Since this is an area that has great potential of further growth, it will attract further academic research, the findings will assist in providing information and reference materials for future researchers, analysts and experts intending to embark on further research on this subject. The findings and discussion of this work would help to ensure greater commitment on the part of the Pension Funds Administrators managing the stakeholder's investments and improve the confidence of the beneficiaries of the pension itself on whether their investment are protected. Above all, it would serve as a useful guide to the Government as an external party particularly, the regulatory agencies of PFAs such as PENCOM in making more favourable policies for the sustainability of the new pension scheme, making future pension reforms and directly or indirectly assisting the management in operating the PFAs.

1.7 Scope of the Study:

This study dwells on the determinants of the performance of PFAs in Nigeria. The study covers a period of 5 years; from 2009 - 2013 which marked the period of five years after the scheme was established in 2004. This period is chosen as the country experienced stability in the political and economic systems, and reforms that took place in the sector which brought about significant investment activities in the pension funds administration. The proxies of the independent variables are firm size, firm growth, leverage, managerial shareholding and institutional shareholding while return on equity is the dependent variable considered in this study.

1.8 Limitation to the Study

This study focused on the internal determinants that influence the financial performance of pension funds administrators operating in Nigeria. There are still other aspects which the study does not cover such as the industry specific determinants and the macro–economic determinants such as Gross Domestic Product (GDP), industry size, interest rate and inflation. The study used only return on equity as the tool for measuring financial performance.

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

This chapter reviews the relevant and related literatures to the study conducted by other researchers and their mixed findings. The main issues discussed include: firm characteristics and financial performance of Pension Funds Administrators, conceptualization of the variables of the determinants of firm performance, concept of firm performance, pension funds administration in Nigeria, determinants of firm performance, empirical review of pension funds investment performance, theories of the determinants of firm performance and the theoretical frame work adopted for this study.

2.2. Firm Characteristics and Financial Performance of Pension Funds Administrators PFAs

Firm characteristics, in the context of the financial performance of pension funds administrators, are considered as key areas of engagement in which favourable results are absolutely necessary to reach financial goals; key areas where things must go right for the business to flourish financially; factors that are critical to the financial success of an organization; as well as key areas of activities that should receive constant and careful attention from management (Rockhart & Bullen, 1981). Countries throughout the world are increasingly relying on individual pension savings accounts to provide income replacement in old age for their citizens. Although these have now been in place for several decades, the metrics for the measurement of their performance has not always been meaningful from the perspective of the long term objectives of pension schemes (Clark and Mitchell, 2012).

According to Serrano and Molinero (2011) however, returns on investments are only one of several factors that will determine the financial performance of PFAs to provide retirement

income to their members. Although these factors are important in the overall performance of PFAs, the focus of the present study is on the effect of firm characteristics on the financial performance. It is primarily directed to evaluating what can be learned about the comparative financial performance of PFAs and consideration of how to undertake financial performance determinants within a framework that is derived from the particular characteristics and objectives of the pension funds administration.

Rockhart & Bullen (1981) define determinants as critical areas of performance that are essential for an organization to accomplish its mission. In the present context, determinants describe the underlying or guiding principles of an effort that any PFA must regard to ensure that it is financially successful. Financial performance according to Cheong (2007) is a subjective measure of how well a firm is doing. It can be a significant element in determining net income, and it is also important in evaluating the financial risk of the firm. Bikker and Dreu (2009), opined that PFAs investment decisions have major influence in financial markets, their financial status can as well impact the financial health of a significant number of individuals during their retirement years. Hence, it remains paramount to assess their financial performance.

One way of establishing the financial performance of PFAs is to use ratios, defined as relationships between two financial balances or financial calculations (Gallagher and Martin, 2009). These include: Liquidity Ratios, Profitability Ratios, Asset Management Ratios, Leverage Ratios and Market Value Ratios. For the purpose of this study, Profitability Ratios (Return on Equity) is used to measure the level of PFAs earnings in comparison to a base, such as assets, sales, or capital. Return on Equity (ROE) thus, refers to a measure of how well management has used the capital invested by shareholders (Brunner et al.,, Hinz & Rocha 2008). This decision is informed by the researcher's opinion that the difficulties defined benefit

pension plans experienced at the turn of the century is only partly attributable to the stock market performance.

The relationship between firm characteristics and financial performance of PFAs is that of cause effect. From a number aforementioned, the present study delves into firm size, firm growth, leverage and ownership structure (institutional shareholding and managerial shareholding) as firm characteristics and critical determinants of Financial Performance of PFAs in Nigeria.

2.3 Conceptualization

2.3.1 Firm Size

Ideal firm size is a theoretical concept, it is defined as the most competitive size for any company in a given industry and at a given time. The long-run average cost curve suggests that there is a level of output where economies of scale and diseconomies of scale even out and per-unit costs are at a minimum. Per-unit profit would presumably be at a maximum.

The concept of firm size has been considered as a fundamental variable in explaining firm profitability by various research studies. A number of studies such as Crose, Kaminker and Stewart (2011) and Chatterton, Smyth and Derby (2010) investigate the effects of size on firm profitability. Company size is usually defined in one of two ways: if it is quoted on a stock exchange, the current value of all its shares and then, the number of employees.

2.3.2 Leverage

Financial gearing (leverage) according to Anderson and Williamson (2000), is the mix of long-term corporate funding provided internally by shareholders and that contributed externally by lenders. Financial Leverage according to Pandey (2001) is the existence of debt in a firm's capital structure. However, there is no clear-cut definition of leverage in the academic

literature; the specific choice depends on the objective of the analysis, (Huang & Song, 2006). A company is said to be unlevered as long as it has no debt, while a firm with debt in its capital structure is said to be leveraged (Huang & Song, 2006). From the above definitions, financial leverage can simply be defined as the degree to which a firm utilizes borrowed funds to finance its operations.

Rajan and Zingales (1995) postulated four alternative definitions of leverage. The first and broadest definition of leverage is the ratio of total (non-equity) liabilities to total assets. This can be viewed as a proxy of what is left for shareholders in case of liquidation. However, this measure does not provide a good indication of whether the firm is at risk of default in the near future. In addition, since total liabilities also include items like accounts payable, which are used for transaction purposes rather than for financing, it is likely to overstate the amount of leverage. In addition, this measure of leverage is potentially affected by provisions and reserves, such as pension liabilities.

Also, Tonks (2005) defined leverage as the ratio of debt (both short term and long term) to total assets. This measure of leverage only covers debt in a narrower sense (i.e., interest-bearing debt) and excludes provisions. However, it fails to incorporate the fact that there are some assets that are offset by specific non debt liabilities. For example, an increase in the gross amount of trade credit is reflected in a reduction in this measure of leverage. Because the level of accounts payable and accounts receivable may differ across industries, Rajan and Zingales (1995) suggest using a measure of leverage unaffected by the gross level of trade credit.

Similarly, Njuguna (2010) views leverage as the ratio of total debt to net assets, where net assets are total assets less accounts payable and other current liabilities. This measure of leverage is unaffected by non-interest bearing debt and working capital management. However,

it is influenced by factors that have nothing to do with financing. For example, assets held against pension liabilities may decrease this measure of leverage.

Ward (2011) suggests that leverage is the ratio of total debt to capital, where capital is defined as total debt plus equity. This measure of leverage looks at the capital employed and thus best represents the effects of past financing decisions. It directly relates to the agency problems associated with debt, as suggested by Jensen and Meckling (1976) and Myers (1977). Hence, for the purpose of this study, the researcher will adopt the definition by Njuguna (2010) since the study's primary objective is to determine the performance of Pension Funds Administrators.

2.3.2.1 Types of Leverage

There exist two major types of leverage i.e. Operating and Financial Leverages. The relationship of operating leverage and financial leverage with the variability of a firm's performance has been widely discussed in finance literature (Akintoye, 2008).

Operating leverage is simply the extent to which a firm uses fixed costs in producing its goods or offering its services, Davis (2000). This also relates to the result of different combinations of fixed costs and variable costs. Specifically, the ratio of fixed and variable costs that a company uses determines the amount of operating leverage employed. A company with a greater ratio of fixed to variable costs is said to be using more operating leverage. If a company's variable costs are higher than its fixed costs, the company is said to be using less operating leverage. The way that a business makes sales is also a factor in how much leverage it employs. A firm with few sales and high margins is said to be highly leveraged. On the other hand, a firm with a high volume of sales and lower margins is said to be less leveraged, (Freeman, Wicks and Parmar, 2004).

Peswani, S. (2011) opined that operating leverage is created by fixed operating costs, such as general administrative overhead expenses, contract employees' salaries and mortgage or lease payment, these tend to elevate business risks. The impact of operating leverage is evident when a given percentage change in net sales results in a greater percentage change in operating income (EBIT).

When considering the benefits of operating leverage, it is appropriate to consider the contribution margin, or the excess of sales over variable costs. When variable costs are lower, the contribution of sales to profits will be greater. In other words, a company with higher operating leverage has the potential to generate much larger profits than a company with lower operating leverage. A company with high operating leverage has a high percentage of fixed costs to total costs, which means more units have to be sold to cover costs. A company with low operating leverage has a high percentage of variable costs to total costs, which means fewer units have to be sold to cover costs. In general, a higher operating leverage leads to lower profits.

It may seem as though a high operating leverage is detrimental to profits, but a high fixed cost structure has some benefits. The principal advantage is that companies with a high operating leverage have more to gain from each additional sale because they don't have to increase costs to generate more sales. As a result, profit margins increase at a faster pace than sales. Once a certain break-even point is reached, the contribution that sales make to profits is much higher than it would be if a greater portion of the costs were variable.

Problems can arise if a company has very high fixed costs, and if a company has difficulty selling enough units to break even on a particular investment. This is referred to as "business risk," since it arises from the inherent risk of doing business. In other words, the uncertainty of

generating a necessary amount of sales is a dilemma all businesses face. Just as the use of operating leverage can lead to greater profits, if a company is able to reach a given, break-even point, so too can the use of leverage drastically multiply losses if that point is not reached.

Financial leverage conversely, according to Brealey & Myers (2003), measures a firm's exposure to financial risk. Financial leverage involves changes in shareholders' income in response to changes in operating profits, resulting from financing a company's assets with debt or preferred stock. This relates to fixed debt costs and it also increases a firm's financial risk. Financial leverage takes the form of a loan or other borrowings (debt), the proceeds of which are (re)invested with the intent to earn a greater rate of return than the cost of interest.

The total leverage of a firm is given by a firm's use of both fixed operating costs and debt costs. This implies that, a firm's total risk equals business risk plus financial risk Brealey & Myers (2003). Financial leverage can accelerate EPS under favourable economic conditions but depresses EPS when the goings are not good for the firm. The unfavourable effect of financial leverage on EPS is more severe with more debt in the capital structure when EBIT is negative. Similarly the firm's financial leverage can increase shareholders' return and as well could increase their risk.

According to Pandey (2001), the financial leverage employed by a company is intended to earn more on the fixed charges funds than their costs. The surplus (deficit) will increase (or decrease) the return on the owners' equity, referred to as a double-edged sword, financial leverage provides the potentials of increasing the shareholders' wealth as well as creating the risks of loss to them. Therefore, the degree of financial leverage indicates the percentage change in EPS emanating from a unit percentage change in EBIT. In general, a firm's short term financing needs are influenced by current sales growth and how effectively and efficiently the firm manages its net working capital. Note that on-going short term financing needs may

reflect a need for permanent long term financing, including an evaluation of the appropriate mix and the use of debt and equity, that is, the capital structure.

Mandelker and Rhee, (1984) observed that, the Degree of Operating Leverage **(**DOL) and the Degree of Financial Leverage **(**DFL) combine to magnify a given percentage change in sales to a potentially much greater percentage in EBIT. In fact, operating and financial leverages together cause wide fluctuation in EPS for a given change in sales. If a company employs a high level of operating and financial leverage, even a small change in the level of sales, will have dramatic effect on EPS. A company with cyclical sales will have a fluctuating EPS, but the swings in EPS will be more pronounced if the company also uses a high amount of operating and financial leverage.

Therefore, there is the need to combine a degree of operating and financial leverages to see the effect of total leverage on EPS associated with a given change in turnover as a result of improved purchasing power enabled by capital structure.

2.3.2.2 Measuring Degree of Leverage

Degree of Operating Leverage (DOL)

Degree of Operating Leverage (DOL) is the percentage change in EBIT relative to a given change in turnover, (Hinz, Rudolph, Antolin, and Yermo, 2010). It is given as:

$$DOL = \frac{\%\ \text{Change in EBIT}}{\%\ \text{Change in Turnover}} \quad - - - - - - \quad 1$$

$$DOL = \frac{\%\ \Delta\ \text{EBIT/EBIT}}{\%\ \Delta\ \text{Turnover/ Turnover}} \quad - - - - - - \quad 2$$

The following equation is also used for calculating DOL:

$$DOL = \frac{Q(S - V)}{Q\,(S - V) - F} \quad - - - - - - \quad 3$$

Where Q is the unit of output, S is the unit selling price, V is the unit variable cost, and F is the total fixed costs.

Degree of Financial Leverage (DFL)

From the foregoing, the financial leverage affects the EPS when the economic conditions are good and the firm's EBIT is increasing. Its EPS increases faster with more debt in the capital structure. DFL is defined as the percentage in EPS due to a given percentage change in EBIT.

$$DFL = \frac{\%\ \text{Change in EPS}}{\%\ \text{Change in EBIT}} \quad - - - - - - - \quad 4$$

$$DFL = \frac{\%\ \Delta\ \text{EPS/EPS}}{\%\ \Delta\ \text{EBIT/ EBIT}} \quad - - - - - - - \quad 5$$

The two types of leverage explored above can be combined into an overall measure of leverage called total leverage. Recall that operating leverage is concerned with the relationship between sales and operating profits, and financial leverage is concerned with the relationship between profits and earnings per share. Total leverage is therefore concerned with the relationship between sales and earnings per share. Specifically, it is concerned with the sensitivity of earnings to a given change in sales.

The degree of total leverage according to (Hinz, *et al*, 2010) is defined as the percentage change in stockholder earnings for a given change in sales, and it can be calculated by multiplying a company's degree of operating leverage by its degree of financial leverage. Consequently, a company with little operating leverage can attain a high degree of total leverage by using a relatively high amount of debt.

A firm that operates with both high operating and financial leverage makes for a risky investment. A high operating leverage means that a firm is making few sales but with high

margins. This can pose significant risks if a firm incorrectly forecasts future sales. If a future sales forecast is slightly higher than what actually occurs, this could lead to a huge difference between actual and budgeted cash flow, which will greatly affect a firm's future operating ability, (Exley, Mehta and Smith, 1997). The biggest risk that arises from high financial leverage occurs when a company's ROA does not exceed the interest on the loan, which greatly diminishes a company's return on equity and profitability.

Degree of Combined Leverage (DOL)

The degrees of operating and financial leverages can be combined to see the effect of total leverage on the wealth of shareholders as demonstrated by EPS associated with a given change in turnover. The degree of combined leverage (DCL) is calculated, given by the following equation:

$$\frac{\%\text{ change in EBIT}}{\%\text{ change in Turnover}} \times \frac{\%\text{change in EPS}}{\%\text{ change in EBIT}} = \frac{\%\ \Delta\text{ in EPS}}{\%\ \Delta\text{ in Turnover}} \quad - \quad - \quad 6$$

Another way of expressing the degree of combined leverage is as follows:

$$DCL = \frac{Q\,(S-V)}{Q\,(S-V)-F} \times \frac{Q\,(S-V)-F}{Q\,(S-V)-F\text{-}INT} = \frac{Q\,(S-V)}{Q\,(S-V)\text{-}f\text{-}INT} \quad - \quad - \quad - \quad 7$$

Where Q(S-V) is contribution and Q(S-V)-F-INT, is the profit after interest but before taxes.

2.3.3 Firm Growth

According to Geroski (1995), the growth and survival prospects of new firms will depend on their ability to learn about their environment, and to link changes in their strategy choices to the changing configuration of that environment. Lee (2009) opined that the term growth generally carries a connotation of quantitative increase. Perhaps the most explicit statements that this connotation should be critical in interpreting the concept of economic growth are to be found in

the writings of Kuznets (1971, pp. 14). He argues rather forcefully that "... economic growth is essentially a quantitative concept", and hence if we are to make substantial progress in the empirical and theoretical analysis of the growth phenomenon ... we must consider the quantitative aspect as basic". This point is generally accepted. However, there remains widespread disagreement as to the magnitude which is in fact, the relevant measure of growth. The apparent unifying element in the various quantitative definitions of economic growth is the agreement that what ideally should be measured is the contribution of economic activity to the achievement of higher states of human welfare.

In defining economic growth in this sense, Bodie, Detemple and Rindisbacher, (2009) argued that economic activity is purposive activity-that economic activity can only be identified and its results measured if there is a prior identification of the underlying purpose of that activity. It is admitted that the concept of purpose is somewhat vague, that a single purpose cannot be objectively established but must be imputed, that empirical verification of any imputed purpose is impossible, and that by consequence, any of a variety of purposes might be imputed equally.

According to Antolin, Payet and Yermo, (2010) a firm is said to experience economic growth if it generates significant positive cash flows or earnings, which increase at significantly faster rates compared to its peers or to the broad economy. This helps the firm to achieve a better position on the financial market because of the market value of its shares. Although there is no hard-and-fast rule for defining growth of a firm, it generally has the capability to increase annual revenues by more than the industry average over a sustained period. A firm would not be classified as a growth firm on the basis of a one-time surge in revenues; rather, growth has to be consistently demonstrated over a number of years.

A growth company tends to have very profitable reinvestment opportunities for its own retained earnings. Business growth can be achieved either by boosting the top line or revenue of the business with greater product sales or service income, or by increasing the bottom line or profitability of the operation by minimizing costs. One consequence of rapid growth is that the firm's balance sheet may come under significant pressure as capital demands escalate in line with business growth. While growth firms in the early stages may not be profitable, investors are generally willing to take a longer-term view in the expectation that rapid revenue growth will eventually translate into increasing profits and cash flow.

Rapid growth in revenue and earnings may be top priorities in corporate boardrooms, but these priorities are not always best for shareholders. Fast growth looks good, but companies can get into trouble when they grow too fast. Problem now arise on how to keep pace with their expansion, fill orders, hire and train enough qualified employees? The rush to boost sales can leave growing companies with a deepening difficulty to obtain their cash needs from operations (Yang, 2005).

The higher the rate of an organization's spending for growth, the greater the company's odds of later being forced to seek more capital. When extra capital required by an organization with rapid growth becomes unavailable, troubles may arise for these companies and their investors. Companies often try increasingly big - and risky - deals to push up growth rates.

Growth appears to be a significant consideration in measuring firms' performance and it does not come suddenly but rather, gradual with long term effect (Cho & Pucik, 2005). This suggests that growth as a determinant of a firm performance needs to be maintained in order for the firm to enjoy sustainable performance.

(i) Long-Term Earnings Growth

Earnings are what are left of a firm's revenues after it pays all of its expenses, costs, and taxes. Companies whose earnings grow faster than those of their industry peers usually see better price performance for their stocks (Whetten, 1987). Projected earnings growth is an estimate of a company's expected long-term growth in earnings, derived from all polled analysts' estimates. When reported for a mutual fund, it shows the weighted average of the projected growth in earnings for each stock in the fund's portfolio (Pablo, 2009). This measure helps in determining the growth score for each stock and the overall growth orientation of a fund.

(ii) Historical Earnings Growth

Historical earnings growth shows the rate of increase in a company's earnings per share, based on up to four periodic time periods, (Hatchett, Bowie & Forester, 2010). When reported for a mutual fund, it shows the weighted average of the growth in earnings for each stock in the fund's portfolio.

Problems may arise where the industry grows and there is continuous pressure to grow earnings in order to please investors, analysts, and to increase or maintain high share prices, Pension Funds Administrators may sort of get caught up in the growth and begin to drift a bit from standards, and consequently, the performance of portfolios may begin to drift. This may cause an organization to focus on investment in a specific performing stock than an investment in sets of poor stock performance (Warner, Watts, & Wruck 1988).

In the real sense, these earnings per share is a veritable variable used to assess firm’s return which to a large extent is a function of firm performance. An organization that is determined to ensure performance will look gainfully on its earnings per share as Hatchett, Bowie & Forester (2010) suggested.

(iii) Sales Growth

Sales growth shows the rate of increase in a company's sales per share, based on up to four intermittent time periods, and is considered the best gauge of how rapidly a company's core business is growing. When reported for a mutual fund, it shows the weighted average of the sales-growth rates for each stock in the fund's portfolio, (Phillips & Reichart, 2000).

(iv) Cash Flow Growth

Cash flow tells you how much cash a business is actually generating in its earnings before depreciation, amortization, and noncash charges. Sometimes called cash earnings, it's considered a gauge of liquidity and solvency, (Gomes & Alexander, 2003). Cash-flow growth shows the rate of increase in a company's cash flow per share, based on up to four time periods. When reported for a mutual fund, it shows the weighted average of the growth in cash flow for each stock in the fund's portfolio.

(v) Book Value Growth

Book value is, in theory, what would be left over for shareholders if a company shut down its operations, paid off all its creditors, collected from all its debtors, and liquidated itself, (Ammann & Zingg 2008). In practice, however, the value of assets and liabilities can change substantially from when they are first recorded. Book value growth shows the rate of increase in a company's book value per share, based on up to four periodic time periods. When reported for a mutual fund, it shows the weighted average of the growth rates in book value for each stock in the fund's portfolio, (Ammann & Zingg, 2008). For the purpose of this study, cash flow growth was adopted.

2.3.4 Ownership Structure

Ownership structures are an important element of the complex system of the theory of Corporate Governance. Corporate ownership structures around the world are very diverse. According to Koke (1999), there seem to be two distinct groups. In the Anglo-Saxon countries, the majority of shares is widely held, whereas in continental Europe shares tend to be concentrated in the hands of a few large shareholders. Gursoy & Aydogan (2002) defined the concept of ownership structure along two dimensions: ownership concentration and ownership mix. The former refers to the share of the largest owner and is influenced by absolute risk and monitoring costs (Thomsen & Pedersen 2000), while the latter is related to the identity of the major shareholder. Ownership structure is not only defined by the distribution of equity with regard to votes and capital but also by the identity of the equity owners. These structures are of major importance in corporate governance because they determine the incentives of managers and thereby the economic efficiency of the corporations they manage. For the purpose of this study, the definition of Gursoy & Aydogan (2002) will be adopted considering the nature of ownership of some PFAs.

2.3.5 Firm Performance

The Research on firm's performance emanates from organization theory and strategic management (Harper, 2008). Firm performance is a relevant construct in strategic management research and frequently used as a dependent variable. Despite this relevance, there is hardly a consensus about its definition, dimensionality and measurement. The concept of firm performance according to Yana (2010) has been a controversial issue in finance largely due to its multidimensional meanings.

In analysing a firm performance, emphasis should be made in formulating an adequate description of the concept of a firm's performance which will uncover the different dimensions

upon which firm's performance should be evaluated. The concept of firm performance needs to be distinguished from the broader construct of organizational effectiveness as it denotes a subset of organizational effectiveness that covers operational and financial outcomes.

Financial Performance is a general measure of a firm's overall financial health over a given period of time (Richard, Devinney, Yip & Johnson, 2009). Superior financial performance is a way to satisfy investors (Chakravarthy, 1986) and can be represented by profitability, growth and market value (Cho & Pucik, 2005; Venkatraman & Ramanujam, 1986). These three aspects complement each other. Profitability measures a firm's past ability to generate returns (Glick, Washburn & Millwe, 2005). Growth demonstrates a firm's past ability to increase its size (Whetten, 1987) and Market value represents the external assessment and expectation of a firm's future performance which have a correlation with historical profitability and growth levels, and also incorporates future expectations of market changes and competitive moves.

Operational performance as described by Venkatraman & Ramanujan (1986) is best viewed as an antecedent of financial performance, mediating the effect of resource. This view has merit and is quite clear in some cases, like production efficiency. But in other aspects, like customer satisfaction, the situation is less clear. While customer satisfaction may be an antecedent of financial performance, it is a performance outcome, in itself as well depending on how a firm's performance is defined argued Combs, Crook & Shook (2005). Defining performance as the satisfaction of stakeholders (Connolly, Conlon & Deustch, 1980; Hitts & Keats, 1988; Zammuto, 1984) helps to differentiate between antecedents and performance outcomes. In this case, customer satisfaction is clearly also an outcome (using the customer – a stakeholder – perspective) and thus part of firm performance.

Two other aspects that should be considered when attempting to define performance are: its time frame and its reference point. It is possible to differentiate between past and future

performance; past superior performance does not guarantee that it will remain superior in the future (Carneiro, 2005). The reference against which performance is being measured, *e.g.* the industry average, the results of main competitors, an established target, or past performance (Carneiro, Silva, Rocha, & Dib, 2007), is also important. Comparisons in relation to targets and past performance indicate the efficiency and evolution of the company. However, they are not suitable for comparing companies from different sizes and industries. Using the average value of the industry or of the main competitors as the baseline indicates companies' competitive position and may be more useful for strategic analyses.

In analogy with these definitions of performance, the performance of a firm can be defined as the outcome of a firm's strategy or an assessment of how well a firm has succeeded in reaching its objectives over a given period of time. This suggests that performance is not just measured quantitatively but also, the qualitative aspect of it needs to be taken into consideration.

2.4 Pension Funds Administration in Nigeria

Pension Fund Administration in Nigeria according to Akhiojemi, (2004) can be categorised into two periods, namely pre-2004 era and the new era beginning form July 2004. The objective of the pension scheme in Nigeria is to provide the employees of an organization with a means of securing on retirement, a standard of living reasonably consistent with which they enjoyed while in service. In effect, it is the totality of plans, procedures and legal processes of securing and setting aside funds to meet the social obligations of care which employers owe their employees on retirement or in case of death. Thus, Pension Fund Administration is geared towards meeting the objective stated above. A well administered scheme will therefore serve as an incentive to new employees and helps to hold back experienced staff.

In Nigeria, the establishment of pension scheme dates back to 1951 when the Pension Ordinance was enacted and made retroactive from 1st January, 1946. This was the colonial pension's law and it was primarily designed for United Kingdom officers who were moved from post to post in the vast British Empire. The intention was to ensure that they maintained continuity of service wherever they were sent to serve. When the law became applicable to indigenous staff, it had limited application to the extent that it was granted at the pleasure of the Governor-General. Under the ordinance therefore pension was not an automatic right of Nigerians. It could be withheld at the flimsiest excuse.

As at independence in 1960, the Pension ordinance CAP 147 of 1958 Laws of Nigeria as amended by Legal Notices, operated in the public Service up to 31st March, 1974. This was drastically reviewed and replaced by Decree 102 of 1979 (new Pension Act CAP 346 of 1990 Laws of Nigeria). This Law has a commencement date of 1st April, 1974. As at today, the Pensions Decree 102 of 1979 is the basic pension law from which other pension laws in the public service of Nigeria have developed. The other laws which cater for specific professional groups but retain the man ingredients of Decree 102 of 1979 are:

i. the Armed forces pensions Act 103 of 1979

ii. The Pension rights of Judges Act No 51 of 1988, 29 of 1991 and 62 of 1991

Pre-2004 Era

All the pension schemes managed in the public service up to June 30th, 2004 were non-contributory in the sense that employees do not contribute from their salaries towards the pension and/or gratuity. The Government simply budgets pension amount as well as that of the present workforce. Gradually, the financial burden of pension/gratuity has become very weighty on government.

By 2002, pension liabilities nationwide was estimated at N2 trillion. The burden of pension liabilities was further compounded by frequent increases in salaries and pension without a full assessment of the short and long term financial implication of these increases. Other problems identified in the old system included differentiation between public and private sector, poor administration,, absence of opportunity for accumulation of investible funds for national economic development and corruption.

July 2004 to Date

The enactment of the Contributory Pension Act of 2004 otherwise known as Pensions Reform Act (PRA) 2004, ushered in a new Era of Pension Administration. Firstly, there is now one unifying law for both the public and private sector pension administration, secondly, the new law makes contribution towards pension compulsory for both employer and employee. We now have fully funded schemes in place in Nigeria. The key highlights of the pension reform act 2014 includes remitting contributions. An employer is under obligation to remit pension contributions to pension fund custodians within seven (7) days after payment of salaries; otherwise, in addition to making the remittance, the employer shall be liable to a penalty which shall not be less than 2% of the total contributions that remain unpaid for each month or part of each month that the default continues**.**

Furthermore, the PRA 2014 has revised the rate of pension contribution (from 7.5% contributed equally by the employer and employee under the old law) to 8% for the employee and 10% for the employer; bringing the minimum total contributions for both parties to 18% compared to 15% previously. As contained in the 2004 legislation, an employer may choose to make the total mandatory contributions without making deductions from the salary of the employee; however, total remittance for any employer who chooses to remit without recourse to the employee must not be less than 20% of the monthly emolument of the employee.

Accessing retirement savings account has also been made permissible in the PRA 2014. Any employee who disengages or is disengaged from employment and is unable to secure another job within four months (previously six months) of such disengagement may make withdrawals from his/her RSA in accordance with the Act. Also, the Retirement Savings Account (RSA) for Life was introduced. Where an employee transfers his/her employment from one employer to another, the same RSA shall continue to be maintained by the employee.

Consequently, every employer must maintain a group life policy in favor of each employee for a minimum of three times the annual total emolument of the employee and, where the employer fails, refuses or omits to make payment for premiums as and when due, the employer shall make arrangement to effect payment of claims arising from the death of any staff in its employment during such period. Importantly, unlike the old law which mandated proceeds of group life policy be paid into the RSA of a deceased employee, the 2014 law mandates the insurance company to pay the life insurance proceeds to the named beneficiary in the policy. What this means is that employees must ensure that their HR records are accurately and consistently updated to reflect the appropriate beneficiaries at all times.

2.5 Determinants of Firms Performance

According to Safarova (2010), previous financial literature is yet to come up with a definitive conclusion as to what firm or industry factors determine or affect firm's performance during any state of the economy. Since the late 1970s, Industry Organization (IO) economics has provided the main theoretical basis for strategic management research into the determinants of firm performance. The key argument was that the structural characteristics of industries were the main determinants of performance (Porter, 1980). Several research papers such as Altman

(1968), and Ohlson (1980) developed different bankruptcy prediction models that tried to determine factors that influenced firm performance during various economic times. Many studies like Hawawini, Subramanian, and Verdin, (2003) argued that industry or external firm factors play a more important role in dictating the influence of firm performance. On the other hand, other studies Opler and Titman, (1994) suggest that firm specific (internal) factors seem to be the major determinants of the operating performance, and are the main drivers for competitive advantage which is crucial for surviving economic downturns.

The fundamental assumption in firm effect models is that firms are heterogeneous. According to the superior firm hypothesis, introduced by Demsetz (1983), firms can be distinguished with respect to their level of cost- or production efficiency. Efficient firms have a competitive advantage over their non-efficient rivals. Higher levels of cost-efficiency can be caused by lower costs of production, economies of scale or higher quality of products. In the Demsetz model, superior performance can exist for some period of time. Potential reasons for that can be the firm's reputation, complex organizational structures, resource heterogeneity, factor immobility or uncertainty of investments. Jovanovic (1982) argues that only efficient firms survive, stay in the market, grow larger and obtain a higher market share.

Peltzman (1977) asserted that high market concentration, in the form of high market shares, and high firm profitability occur simultaneously and are the result of the same cause, differences in productivity levels. Markets function competitively, and no collusion between firms takes place that restricts supply or enables firms to raise their price above marginal costs. For this reason, high firm profitability is not necessarily associated with welfare losses in firm effect models. This implies that industry effects, such as concentration and entry barriers, and firm effects, such as productivity differences or strategic management, are empirically important. Previous studies have shown that firm-level or industry-specific effects are found to be the dominant

factor on firm profitability of which the researcher intends to examine using five specific determinants of performance (i.e. firm size, firm growth, leverage, institutional shareholding and managerial shareholding) on the performance of PFAs in Nigeria.

2.5.1 Firm Size and Firm Performance

The study of firm performance has been an inexhaustible subject of debate that has drawn the attention of several researchers. The performance of a firm can be measured using different indices and by applying different methods; however, profitability ratios is the key measure of a firm's overall efficiency and performance widely used by stakeholders (Bhattacharyya & Arunima, 2009). Several theories have emerged trying to explain the reasons why some firms enjoy a higher profit than others and a number of studies investigated the effect of different variables that may drive the performance of a firm.

The performance of a firm among other measures can be measured by the rate of its profit, return on assets, and stability of its market share. Some of these alternative measures of performance are found related to the firm size (Bhattacharyya & Arunima, 2009). The study of the relationship that exist between firm size and its economic performance has overtime received considerable interest in empirical studies and has intrigued researchers over the years because of the inconclusive results of empirical studies. Gibrats (1931), Law of Proportionate Effect depicts that a firm's growth rate is independent of its size.

Baumol (1959) on the other hand, hypothesized that a positive relationship exists between the rate of return and the size of a firm. But, the argument that mere size influences the rate of return has intrigued researchers over the years. Several researchers support the arguments that larger firms are more likely to attain a higher performance by exploiting the economies of scale and enjoy higher negotiation power over their clients and suppliers (Serrasqueiro & Macas

2008; Mansfield 1962; Singh & Whittington 1975). Larger firms face less difficulty in accessing credit facility for investment, and they enjoy broader pools of qualified human capital, and may achieve greater strategic diversification (Yang & Chen 2009). Smaller firms on the other hand, exhibit some certain characteristics which can cushion the weaknesses associated with their size. Smaller firms suffer less from the agency problem and are characterised by more flexible non-hierarchical structures, which may be the appropriate organisational forms in changing business environments (Yang & Chen, 2009).

Hymer & Pashigian (1962), Mansfield (1962), among other researchers empirically validated the Gibrat's Law. Other researchers such as Hall & Weiss (1967); Gale (1972); and Shepherd (1972) observed that firms with a large size, enjoy a higher profit rate. More recently, Rauh (2006); Vijayakumar and Tamizhselvan (2010); and Abiodun, (2013), all show a positive relationship between the size of a firm and rate of its profitability. Another set of studies however, report that larger firms experience lower profit rates owing to diminishing returns to the fixed factors of production (Myers 1977; Liatner 1988 and Maja & Josipa 2012). Other researchers such as Sweeting (2005), and Reisen (2000), conclude that a company that grow beyond its optimal level can deteriorate its performance level. Other existing studies also suggest that small firms may face an incentive to grow with the prospect of exploiting various benefits attributed to larger size.

A successful growth strategy would require a firm's growth not to be seriously restricted by factors exogenous to the firm. Namely, when forces outside managerial control confine the firm's growth potential, increasing firm size might not be a realistic strategy to increasing performance. Firms operating in small economies can be highly exposed to such forces. Small economy size may limit the capacity of managers to implement a growth strategy and to some extremes challenge the long-term viability of the firm (Armstrong et al. 1998). Small

economies are characterised by small local market sizes and their lack of economies of scale affects firms particularly in sectors where substantial fixed and sunk costs are prerequisites for operation. Moreover, their limited scope for skilled labour substantially reduces firms' procurement options (Castello & Ozawa 1999). Small economies may sustain only a very small number of large firms, relative to the overall market size.

2.5.2 Growth and Firm Performance

The nature of the relationship between the growth of a firm and economic performance has received considerable attention in the literature and has provoked vigorous debate. Several arguments favour larger firm sizes in attaining higher performance. The use of growth as a measure of firm performance is generally based on the belief that growth is a precursor to the attainment of sustainable competitive advantages and profitability (Markman & Gartner, 2002). In addition, larger firms have higher rates of survival (Aldrich & Auster, 1986), and may have the benefits of associated economies of scale.

The alternative view (Hawawini, Subramanian & Verdin, 2003) is that fast growing firms may encounter difficulties associated with growth that leads to reduced profitability and perhaps financial difficulty. Overall, it is difficult to imagine sustained growth without profitability. Without funding growth through retained earnings, the firm must rely on additional debt or equity finance. The relationship between growth and profitability is therefore an important consideration and to date there has been little agreement on the relationship between these two measures (Yana, 2010).

2.5.3 Leverage and Firm Performance

Financial managers are faced with the problem of sourcing for capital by issuing debt securities and/or by selling common stocks in order to improve on the operating capacity of their businesses such as purchase of new equipment to replace existing equipment, expansion of

operating capacity, and other decisions. Capital structure is how a firm finances its operations and growth by using mixed sources of funds. The amount of debt and equity that makes up a company's capital structure (level of leverage) has many risk and return implications.

Generally, many researchers posit a positive relationship between financial leverage and the performance of a firm. Studies by Obradovich and Gill (2013), Gweyi, Minoo and Luyali (2013), Akinmulegun (2012) have all favoured the existence of a positive relationship between this two indices. However, Jensen and Meckling (1976), Myers (1977) on the other side, opined that a higher leverage means higher agency costs because of the diverging interests between shareholders and debt holders. This moral hazard problem suggests that leverage may be negatively linked to performance. Thus, the study provides an opposite arguments on the relationship between leverage and corporate performance.

The use of financial leverage varies greatly in industry and in business sectors. There are many industry sectors in which companies operate with a high degree of financial leverage. Retail stores, airlines, grocery stores, utility companies, and banking institutions are classic examples (Singh & Luthra, 2013). Unfortunately, the excessive use of financial leverage by many companies in these sectors has played a paramount role in forcing a lot of them to run bankrupt. Examples include R.H. Macy (1992), Trans World Airlines (2001), Great Atlantic & Pacific Tea Co (A&P) (2010), and Midwest Generation (2012). Similarly, the excessive use of financial leverage was the primary culprit that led to the U.S. financial crisis between 2007 and 2009, the demise of Lehman Brothers (2008) and a host of other highly levered financial institutions are prime examples of the negative ramifications that are associated with the use of highly levered capital structures. A survey of the empirical literature on this debate shows the lack of consensus on the link between leverage and corporate performance (Singh & Luthra, 2013).

2.5.4 Ownership Structure and Firm Performance

One of the most important trademarks of the modern corporation is the separation of ownership and control. Modern corporations are typically run by professional executives who own only a small fraction of the shares. There is an important and ongoing debate in corporate finance literature on the connection between ownership structure and performance. Empirical studies about the relation between both variables seem to have yielded conflicting results. The debate goes back to the thesis of Berle and Means (1932) which observed an inverse correlation between the diffuseness of shareholdings and firm performance. Their view has been challenged by Demsetz (1983), who argues that the ownership structure of a corporation should be thought of as an endogenous outcome of decisions that reflect the influence of shareholders and of trading on the market for shares. According to Demsetz and Villalonga, (2001) when owners of a privately held company decide to sell shares, and when shareholders of a publicly held corporation agree to a new secondary distribution, they are, in effect, deciding to alter the ownership structure of their firms and, with high probability, to make that structure more diffused.

Subsequent trading of shares will reflect the desire of potential and existing owners to change their ownership stakes in the firm. In the case of a corporate takeover, those who would be owners have a direct and dominating influence on the firm's ownership structure. In these ways, a firm's ownership structure reflects decisions made by those who own or who would own shares. The ownership structure that emerges, whether concentrated or diffuse, ought to be influenced by the profit-maximizing interests of shareholders, so that, as a result, there should be no systematic relation between variations in ownership structure and variations in firm performance.

2.6 Empirical Review on Pension Funds Investment Performance

Hsin and Mitchell (1994) and Mitchell and Smith (1994) were two of the first studies on evaluations of plan governance on fund performance for the population of state and local pensions. Using 1991 PENDAT data, Hsin and Mitchell specified four separate regressions with actuarial funding ratio, flow funding ratio, and two estimates of investment Rate of Return (ROR) as the respective dependent measures. While these outcome measures are the same as those proposed for this study, Hsin and Mitchell did not include any interdependencies between actuarial funding ratios, flow funding ratio, and ROR in their models. The authors' observed an increase in the proportion of plan participants on the retirement plan board is associated with a decrease in both the actuarial funding ratio and investment ROR. Although Mitchell and Smith (1994) examine different covariates than Hsin and Mitchell (1994), the most important contribution from their research is the development of an empirical model that accounts for the relationship between the three dependent variables of interest. However, events have overtaken their findings as the scope of their study was limited to 1994.

Exley, Mehta, and Smith (2003) conducted a study on the company manager's view of pension plans. The main argument of the study was that classical financial theory offers a normative prescription for pension fund asset allocation that rejects the widely adopted portfolio selection theory favored by practitioners in favor of close asset and liability matching. The study concluded that corporate managers could reveal to outsiders a number of secondary reasons why they continue to support equity investment by pension funds, contrary to the normative, neoclassical theory. However, one main justification appears to be an insider effect whereby management prefers to maintain the significant ability to manipulate earnings associated with equity invested pension funds.

Research by Vijayakumar & Tamizhselvan (2010) also examined the impact of board composition on pension performance, but in contrast to Yang (2005), they hypothesized a

positive relationship between the two factors. Vijayakumar & Tamizhselvan defended their empirical expectation by arguing that since pension participant trustees were elected by plan membership, they were more likely to serve the best fiscal interests of the fund and be less subject to political pressure. While the observed correlation between percent of plan members and ROR was positive, the result was not statistically significant.

Demsetz and Lehn (1985) provided evidence of the endogeneity of a firm's ownership structure argued for by Demsetz (1983). In assessing the validity of the findings of Berle and Means thesis on the existence of a linear regression of an accounting measure of profit rate on the fraction of shares owned by the five largest shareholding interests and on a set of control variables in which ownership structure is treated as an endogenous variable, it was observed that no evidence of the existence of a relation between profit rate and ownership concentration exist. Morck, Shleifer and Vishny (1988) ignore the endogeneity issue altogether and re-examine the relation between corporate ownership structure and performance. Like Demsetz and Lehn, 1985, they find no significant relation in the linear regressions they estimate using Tobin's *Q* and accounting profit rate as alternative measures of performance.

However, Alexander & Dillip (2009) attributed Part of the diverse results in previous research studies to the difference in the criteria for differentiation between owner and non-owner manager controlled firms. Others attributed the difference to the method of measurement. These criteria of differentiation between owner and non-owner manager controlled firms, according to John (2013), this is typically based on percentage ownership by large blockholders, and are less innocuous and more problematic than initially believed because, as demonstrated by Morck et al. (1988) and Marshal (1961), the relation between percentage ownership and firm performance is nonlinear.

A study was also carried out by Tonks (2005) on pension fund management and investment performance. The study established that the value of the pension fund will increase over time due to contributions and the investment returns on the fund. These investment returns depend on the asset allocation and portfolio decisions of fund managers. Small changes in the investment returns, increase to large changes in the value of the pension fund at retirement. The evidence on fund manager performance is that on an average they do not add very much value over and above a passive strategy of investing in the market index. However this average disguises the fact that some fund managers perform well, and others perform poorly. Identifying and understanding the persistence of the poor performance of some fund managers is an important issue in the pensions area, and one in which further research would be worthwhile.

Yang (2005) used a longitudinal PENDAT data set for 1990 to 2000 to improve upon the research design of Mitchell and Smith (1994) by developing three separate empirical equations each with time-lagged interrelated outcome variables. While the three respective outcome variables were also used as covariates in the other equations, the models are not mathematically interrelated such as the case with a Two-Stage Least Squares regression. For instance, investment ROR was selected as a covariate for an equation with actuarial funding ratio as the dependent variable, while actuarial funding ratio and investment ROR were both explanatory factors for the model with flow funding as the dependent variable. Yang (2005) reported a highly significant correlation between investment ROR and actuarial funding ratios for a given year, confirming the validity of this time-sensitive quantitative approach. The authors found statistically significant evidence that an increase in the number of retired or active plan participants on the pension board is associated with a decrease in the actuarial and flow funding ratios as well as with investment ROR.

Importantly, Yang (2005) examined the behavioral persistence hypothesis for pension performance. These researchers expected a unitary relationship for plan funding from one year to the next, reasoning that since government funding practices do not change quickly overtime, there would be a strong correlation between past and current performance. Yang (2005), observed a strong positive statistical relationship for actuarial funding ratio from one year to the next, although the coefficient estimate was slightly less than 1. The empirical model used for this research will again evaluate the behavioral persistence expectation for plan performance.

Munnell, Haverstick and Aubry (2008) performed one of the most recent evaluations of pension performance and have similarly reported inconclusive results about the effect of plan governance. They used financial and investment variables in the *Public Fund Survey* for 2006, along with governance variables they themselves collected from pension comprehensive annual financial reports. The authors concluded that an increase in the number of plan participants on the board has neither a statistically significant nor substantively important effect on the actuarial funding ratio. Importantly, these researchers were also the first to test the impact of whether a pension had an investment council, which is a separate governance structure comprised of trustees responsible for setting fund investment policy, advising on asset allocation, and monitoring investment performance. These researchers concluded that there was a large positive differential in pension funding between systems with a separate council compared to those pensions without one.

In a companion study, Munnell, Haverstick, Aubry and Golub-Sass (2008) examined the effect of governance on the funding level for plan Actuarial Required Contributions (ARC). In contrast to most other public pension studies, this research presented a probit regression model where the outcome measure was a dummy variable set to '1' if a plan meets 100 percent or greater of the ARC and to set to '0' otherwise. The empirical results indicated that increasing

the number of plan participants on the pension board did not have a statistically significant effect on ARC payments. Despite the lack of empirical evidence to support a governance hypothesis, the model nevertheless provided an innovative approach for examining the determinants of ARC paid.

Antolin (2008) also did a comparative study on the performance of pension plans. The study was sponsored by OECD in collaboration with the World Bank and some private sector institutions and began at the end of 2006. The main aim was to compare investment performance of privately managed pension funds across several OECD, Latin American and Central and Eastern European (CEE) countries. The study first provided an analysis of aggregate investment performance by country on a risk adjusted basis using relatively standard investment performance measures. The second stage of the study involved evaluating potential relationships between the characteristics of each pension system, individual regulatory environments and the investment performance. The study established that the Sharpe ratio and attribution analysis show that, for those countries with enough information and data to adjust returns accordingly, privately managed pension funds have obtained a risk premium against short-term investment alternatives. It was also clear from the findings that pension funds have generally underperformed with respect to the hypothetical portfolio with the highest (mean) return for a given level of risk. The results also confirmed that in several countries investment restrictions have had a negative impact on performance.

Ammann and Zingg (2008) carried out an investigation into the relationship of pension fund governance and investment performance of Swiss pension funds. The study was based on a sample of 96 pension funds with total assets of more than CHF 190 billion. The study findings indicate that good governance with respect to target setting and investment strategy seems to be of particular importance. In contrast, organization, investment rules and organization,

controlling and steering, and communication are not significantly related to performance. However, this does not mean that governance issues in these areas are negligible.

Lungu (2009) carried out a study on the viability of occupational pension schemes in Zambia. The study focused on 7 multi-employer trusts in Zambia and investigated the factors that influence their viability. The findings from the study revealed that the 7 multi-employer trusts in Zambia are in deficit hence not viable. The study also established that there are a number of factors that determine their viability: inadequate regulatory policy; unstable macroeconomic environment and high levels of employee mobility. It was also established that there exists a significant relationship between the viability of the pension funds and the three variables mentioned above.

Gitundu (n.d) did an assessment of asset selection and performance evaluation of pension funds in Kenya. The study was motivated by a World Bank (1997) study on Old Age Security in China that revealed an impending old age crisis due to the breakdown of family based systems of old age security. It was established that asset allocations differ between various pension funds, an indicator that the criteria for developing the optimum investment mix differ between investment managers of various pension funds. It was also clear from the findings that that, although performance of pension funds' assets is comparable to various market indexes, there is no defined standard performance measure. Some fund managers construct in-house indexes for some assets, others evaluate performance against available economic performance indicators, while others were silent on the performance of the pension funds portfolio.

Another study was also conducted by Njuguna (2010) on strategies to improve pension fund efficiency in Kenya. The findings from the study indicate that fund size is a significant determinant of the financial efficiency of pension funds. Empirical results also established that those smaller funds are perceived to be more financially efficient than bigger ones. It was

however clear that the size of the pension fund did not have any significant influence on the operational efficiency of pension funds. It was also evident that that fund regulations influence how funds are governed and led. Adherence to the identified fund regulations were shown to improve fund governance and leadership.

Hatchett, Bowie and Forester (2010) indicate that Pension Funds Administration need to understand the premise of risk management since it plays a very significant role in providing increased organizational effectiveness of disparate risk management functions through a central coordinating function that has clear ownership and accountability for overall risk management. They further assert that senior management who understand risk management will be better informed when making material decisions and should be better able to assess risk/return trade-offs, as well as having an alternative insight into emerging risks and opportunities.

Most of the researches conducted on the effect of firm characteristics on the financial performance and determinants of pension fund investment were based on studies in developed nations and previous financial literatures reviewed in the study remains inconclusive as to what variables influence a firm's performance better? Explaining the sources of differences in performance among firms is a key to theoretical and empirical issue in the field of strategic management.

2.7 Theoretical Framework

Many theories have been developed in relation to pension reform across the globe. In this study, the researcher intends to make use of the pension reform theories that are practically relevant to determine the investment performance of Pension Funds Administration in Nigeria. Each of them is briefly explained subsequently.

2.7.1 Utility Theory

Utility Theory provides a means for making choices when faced with uncertainty. It can be used as the basis for analyzing investment risk. Proponents of the theory Diamond (2002), Drake & Rhyne, (2002) Bergstresser (2006) and Rauh (2006) suggest that the determination of the value of income is not based on the amount of income value on the utility but the amount of income provided.

2.7.2 Theory of Immunization

The proponents of this theory, Lucas & Zeldes (2006) posit that, a pension fund should choose assets to back liabilities such that the financial factors that affect the value of the liabilities affect the assets in a similar way. According to Petersen (1996), to derive conditions under which the fund will be immunized against losses, it is assumed that: (a) the rate of interest that the pension fund can earn on its assets is compatible with that which it uses to value its liabilities. (b) The assets are exactly sufficient to meet future liabilities. (c) All the assets are invested in fixed interest securities and that they are held to meet liabilities fixed in a specific currency. Dusek & Juraj (2008) observe that if there is a small movement, either up or down, in the force of interest, the pension fund will make a surplus in the sense that the change will lead to the value of the assets rising by more than the value of the liabilities (or falling by less).

2.7.3 Theory of Absolute Matching

The theory of absolute matching was demonstrated by Sweeting (2005) and Yemo (2007). The theory depicts a point at which the investor has some critical planning purpose such as the repayment date of a substantial liability. At the beginning of an investment process the investor makes decisions regarding the asset mix, liabilities and the financial goals of a substantial liability. Setting an investment strategy to control the risk of failing to meet financial objectives

would therefore involve a method of taking the variation in the assets with the variations in the liabilities into account simultaneously (Mayer et al 2003 and Borella & Fornero 2007).

2.7.4 Theory of Pooling

Pooling and diversification are fundamental characteristics of pension funds, given their size and consequent economics of scale. In this context, it may be noted that the mutually reinforcing development of securitization of individual assets (such as loans), which has provided a ready supply of asset in which pension funds may invest instead of banks holding them on their balance sheets. In addition, participation costs of market activity may also be of major importance in determining the demand for services of pension funds. The traditional theory of pooling suggests that transactions costs in securities markets, including the bid-ask spread and minimum size investment barriers, make it difficult for households of average means to diversify via direct securities holdings. Meanwhile, risk incurred if diversification is insufficient is not compensated by higher return, because such risk is diversifiable to the market as a whole (Mathieson, Jorge, Ramana & Anna 2004). Historically, this either meant that individuals took excessive risk or were obliged to hold lower-yielding assets such as bank deposits.

The idea of participation costs complements that of transactions costs, and helps explain why pension funds have continue to grow even as transactions costs have come down. The basic idea is that there is a fixed cost to learning about a company, and also an ongoing cost of being active in the market and remaining up to date, which may discourage individuals from holding sufficient shares for adequate diversification (Allen & Santomero 1998).

Furthermore, the skills needed to undertake risk management may be too costly for individuals to acquire (Allen & Santomero 1999). Bridgen & Meyer (2008) observe that, pension funds

offer much lower costs of diversification by proportional ownership. One reason for this is that there are economies of scale in large transactions, related partly to the fixed costs involved. Pension funds can also offer the possibility of investing in large denomination and indivisible assets such as property which are unavailable to small investors. Moreover, pension funds reduce the cost of transacting by negotiating lower transactions costs and custodial fees. They conclude that individuals are likely to switch to pension funds from direct holdings of securities and from bank deposits. Therefore forced pensions saving will tend to boost their overall saving particularly markedly (Bergstresser, Mihir & Rauh 2006).

Portfolios pension funds vary widely, but in most cases they hold a greater proportion of capital uncertain and long term assets than households, while households, have a much larger proportion of liquid assets (Whelan 2004). These differences can be explained partly by the time horizons. Also as noted by Whelan (2002), pension funds compensate for the increased risk, by pooling at a lower cost across assets whose returns are imperfectly correlated. The implication is that pension funds increase the supply of long term funds to capital markets, and reduce bank deposits even abstracting from changes in aggregate saving, so long as households do not increase the liquidity of the remainder of their portfolios fully to offset growth of pension fund assets. Research on household asset holdings at a micro level such as Kortleve, Nyman & Ponds (2006) find little such offsetting.

2.7.5 Social Responsibility Theory

Social Responsibility Theory examines the new pension policy and its impact on the civil servants within the context of democratic governance in Nigeria. Social protection of a population has always been one of the most important functions of the state. Since ancient times, the powers-that-be have been helping destitutes and disabled in the event of emergency. In the middle Ages, churches and monasteries hosting free hospitals and asylums supported this

activity. Craft and merchant guilds, as well as municipalities of big cities, also supported and aided members of their communities. Social protection of populations was not always systematic and permanent. Assistance was rendered through various channels and included such forms as free medical treatment and material support of widows and orphans, and allocation of money, clothes and food to people who were homeless. The goal of this assistance was determined not only by the Christian goodwill traditions, but also by the pure economic necessity. The situation when European countries were depleted by epidemics and wars made each governor take care of his population, as its preservation and accrual was the source of tax and revenues.

The complex of various forms of maintenance in old age or in the event of disability is called social security. The social responsibility theory is originally a theory of press freedom. It was first introduced in the United States of America in 1947 when the commission on freedom of the press headed by Robert Hutchins recommended that:

a. The press has a responsibility to society; and
b. because the libertarian press of the U.S. is not meeting this responsibility, there is a need for a press theory (Lloyd; 1991:199).

The result was a proposal favouring a socially responsible press. It is an outgrowth of the libertarian theory whose basic tenets centred on man's rationality and lethargy. The demand for social responsibility underscores the fact that there is inequality in society and the need to set up the institutional means to fulfilling the acclaimed responsibilities. This theory presupposes that different entities have different responsibilities. While the social responsibility of the states is to ensure the civil rights of their citizens, corporations to respect and encourage the human rights of their employees, that of the citizens is to abide by the written laws. This brings to the fore the element of reciprocity in social responsibility. Today, the dynamic role of the state and

its institutions has broadened the concept of social responsibility. Flowing from this thought, Non-Governmental Organisations (NGOs), have identified their role and responsibility to help improve society. This is under the guise of corporate social responsibility, where corporate institutions have implicit responsibility to give back to society what they get from society. This implies that it is voluntary and beyond what is called for by law. The derivative is that social responsibility has a legal responsibility.

Social responsibility assumes that it is better to be proactive towards a problem than reactive to a problem. It therefore calls for the elimination of corrupt, irresponsible, or unethical behaviour that might bring about harm to the work place, its workers or retirees or the environment. It underscores the point that ethical behaviour is at the root of social responsibility. The problem affecting the management of the defined benefit schemes is as a result of the unethical behaviour (corruption and mismanagement of pension funds) engaged in by the traditional pension funds managers. Most often, pensions funds are not released on time and when released they are often diverted for selfish ends. The arrears of unpaid pension funds are a fall out of the unethical behaviour indulged in by pension fund administrators under the traditional scheme (Akhiojemi 2004). To this end, for pension funds to be successfully managed either under the defined benefit scheme or the contributory scheme, ethical principles must be maintained the stakeholders.

While social responsibility has a moral value, it has economic value as well. The economic value is the total amount of money individual employee is mandated to contribute or invest in socially responsible goods or services. In relation to the contributory pension scheme, it has to do with the amount of money individual employee is willing to contribute to his retirement savings account. In this case, the responsibility of individual employee is to pay 7.5% of his salary and allowances to his retirement savings account. The proactive stance of both employee

and employers to fulfilling this social responsibility will determine the success of the contributor pension scheme. One could therefore contest that, the major weaknesses of the defined benefit scheme was government inability to finance the scheme. Negative social responsibility became the vogue, hence the need to reform the system in line with global demands.

In another dimension, social responsibility means being responsible to people, for the actions of people and for actions that affect people. This is the challenge for federal ministries and PENCOM as it was responsible for managing the pension fund and the record of her pensioners. In this instance, social responsibility deals with holding federal ministries, a group, organisation or company accountable for its actions and its effect on the people around it – the pensioners. The import of the social responsibility theory lies in the fact that pension administration is a social responsibility of government to provide for her employees. Thus, the responsibility has devolved on employees and employers to make contributions to the retirement savings account of individual employee to insure them against old age poverty. Proactively the various stakeholders are to make their statutory contributions to the effective management of the pension scheme. While the social responsibility of ministries is to process the retirement files of employees promptly and forward the record to PENCOM, the various MDAs should promptly furnish ministries with names of staff that are due for retirement.

In another instance, the social responsibility of the pension fund administrator and custodians is to manage and invest the pension fund in a way that will yield much profit into the individual workers retirement savings account. PENCOM in this stead is to enhance its supervisory roles. These are the social responsibility of these institutions involved in pension fund management. The contention is that their approach should be proactive and not resistant in nature if much success is to be recorded. A responsible government is measured against the degree of social

services provided for her citizens. While this is a mark of social responsibility demonstrated by government it shores up the legitimacy profile of the said government. Given the relevance of the social responsibility theory to the subject matter of this research, it is therefore adopted as the theoretical framework for this study.

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the research design, population and sample of the study, methods of data collection, techniques of data analysis, variable measurements and definition and model specification.

3.2 Research Design

A correlation research design was utilized for this study to link the determinants of Nigerian Pension Administrations' performance because it is concerned with the collection of data for the purpose of describing and interpreting existing conditions of determinants of the performance of PFAs. It thus, attempts to establish the underlying facts about their relationship. The type of descriptive research the study intends to use is the sample survey study because it enables the researcher to select some PFAs out of the total population, which it is believed to be sufficient for the generalisation of the study findings.

3.3 Population and Sample of the Study

The population of this study consists of all the twenty (20) registered and licenced PFAs recognised by the National Pension Commission (PenCom) as at 31st December, 2013. For the purpose of this study, simple random sampling technique was used. This technique helped to avoid bais in selecting the sample size from both the subsidiary of holding company and those of independent PFAs. In view of the nature of the segregation, a filter was employed to eliminate some of the PFAs with incomplete records of their available financial statements or with incomplete data which are needed necessarily for measuring the variables of the study

within the period (2009-2013). At the end of the day, eleven (11) PFAs were selected after filtering away those PFAs with inadequate annual reports covering the period of the study.

3.4 Sources and Methods of Data Collection

The study used secondary data, this is due to the fact that the study is quantitative in nature, and as such data was extracted from the published financial reports of the selected PFAs in Nigeria. This enabled the researcher gather a wide scope of the necessary information relating to this study.

3.5 Technique of Data Analysis

The nature of data collected determines the type of tool to be adopted for the analysis. For the purpose of this study, multiple regression was adopted to analyse the extracted data. The quantitative data collected was analyzed by the use of both descriptive and inferential statistics using statistical package for social sciences (SPSS) version 16. This is for the reason that the study examines the effect of firm characteristics on the financial performance of PFAs viz: Size of the PFAs, leverage level of the PFAs, growth of the PFAs, managerial shareholding and institutional shareholding of the PFAs in Nigeria which are the independent variables on the performance of PFAs represented by Return on Equity (ROE) of the registered PFAs in Nigeria.

Regression models are employed, therefore, the assumptions of these models should be regarded. That is, the reliability of regression assumptions can be determined by considering residuals distribution and its relationships with other variables. Residuals include the difference between the observed values of a dependent variable and the predicted values by regression line. In regression analysis considering linearity, normality, stability of variance and independence of observations is of vital importance. In this study, these assumptions are observed and considered. A research design in which more than one predictor variable is used

to predict a single outcome variable is analyzed through multiple regression (Aiken and West, 1991). Therefore, since this study used five determinant factors as predictors to predict one variable called return on equity independently, it justifies the application of multiple regression technique.

3.6 Variable Measurement and Definition

Table 3.1 Variables used and their description

VARIABLES	DESCRIPTION
Return on equity (ROE)	Earnings after tax divided by firm's equity and multiplied by 100
Firm size 1 (SIZE 1)	Natural logarithm of the firm's assets
Firm Growth (FGROWTH)	Measured by the cash flow from the operation.
Firm Leverage (LEV)	Measured as total debt/total asset.
MS	Managerial Shareholding measured as a portion of shares held by executive directors.
IS	Institutional Shareholding measured as a portion of shares held by institutional shareholders.

3.6.1 Model specification

Multiple regression models structured by OLS will be used to examining the five hypotheses of this study as stated below:

$ROE= \beta_0+\beta_1 SIZEit+ \beta_2 GROWTHit+\beta_3 LEVit+\beta_4 MSit+\beta_5 ISit+ eit$ (i)

Where:

ROE=Return on Equity

β_0 = Intercept

β_{1-5} = Coefficient of the independent variables

FSIZE = Firm Size

FGROWTH = Firm Growth

LEV = Leverage

MS = Managerial Shareholding

IS = Institutional Shareholders

e = Residual or error term

CHAPTER FOUR
DATA PRESENTATION AND ANALYSIS

4.1 Introduction

This chapter provides the results from the analysis of the data and interpretation between the dependent and independent variables. The dependent variable included in the model is the financial performance which has proxy with return on equity and it is measured as the ratio of earnings after tax to firm's equity while the independent variables included in the model are the factors that drive the financial performance of pension funds administrators in Nigeria. These include firm size (FSZE), firm growth (FGROWTH), leverage (LEV), Managerial Shareholding (MS) and Institutional Shareholding (IS).

The chapter is divided into four sections. The first section presents the preliminary analysis of the sample of the study using the descriptive statistics which is immediately followed by correlation analysis between the dependent and independent variables which constitute the second section, while the third section deals with the various test conducted between the explanatory and explained variables in order to improve the validity of the result. The fourth section equally tests the hypotheses of the study formulated earlier in chapter one and also focuses on the findings and policy implication derived from the findings.

4.2 Descriptive Statistics

This section presents the descriptive statistics of the study where the minimum, maximum, mean, standard deviation, skewedness and kurtosis are described. The summary of the descriptive statistics is shown as follows:

Table 4.2.1 Summary of Descriptive Statistics (2009 – 2013)

VAR	*MINIM*	*MAXIM*	*MEAN*	*STDDEV*	*SKEW*	*KURT*	*OBSER*
ROE	*0.00*	*20.45*	*1.413*	*4.475*	*3.705*	*12.119*	*80*
FSZE	*0.10*	*0.43*	*0.262*	*0.081*	*-0.203*	*-0.965*	*80*
FGROWTH	*0.20*	*21.21*	*16.301*	*4.740*	*-2.321*	*5.696*	*80*
LEV	*0.16*	*2.98*	*1.191*	*0.622*	*0.955*	*1.013*	*80*
IS	*10.21*	*19.99*	*14.913*	*3.276*	*-0.047*	*-1.584*	*80*
MS	*0.07*	*27.23*	*17.717*	*5.777*	*-1.730*	*3.123*	*80*

SOURCE; OUTPUT FROM SPSS 2015

The data set as indicated from Table 4.2.1 contained a total of 80 observations for the sample of registered and licensed PFAs operating in Nigeria over a period of 6 years for five independent variables and one dependent variable.

The mean value of all the variables as depicted from the Table ranges from minimum of 0.00 to maximum of 27. 23. The average value of financial performance as proxy by return on equity is 1.41 with a standard deviation of 4.475. This implies that return on equity as measured by the ratio of earnings after tax to firm's equity deviates from its mean value up to 4.47%. The firm size as measured by the natural logarithm of total assets has a mean value of 0.2629 with a standard deviation of 0.081. This signifies a moderate significant variation across the sample of PFAs operating in Nigeria.

The analysis revealed that firm growth, institutional shareholding as well as managerial shareholding has a mean value of 16.301, 14.913 as well as 17.717 with their standard deviation of 4.70, 3.28 and 5.77 respectively. The outcome signifies a huge significant difference among the values of the variables concerned. The high average values of the three explanatory variables is an indication that the variables impacted on the financial performance of Pension Funds Administrators in Nigeria as this will be revealed in our regression result. The leverage of the firm as measured by ratio of equity to debt has a mean value of 1.1914 with

a standard deviation of 0.62. This implies that there is a moderate significant variation among the value of leverage of PFAs in Nigeria.

Finally, the skewedness and kurtosis reveal that the data obtained for all the variables both dependent and independent variables are normal except for return on equity but it will not have any effect on the validity of our conclusion (Hatchet, Bowie and Forester 2010). The result of normality test therefore signifies normality of the data and further enhances the validity of the regression result.

4.3 Correlation Matrix

The section presents the correlation result of the explanatory variables and the explained variable. The correlation matrix is used to examine the linear association between the independent and dependent variables and also among the independent variables themselves. The study therefore adopted Pearson correlation coefficient to assess the level of association between the variables concerned.

The table below shows the correlation between the dependent variable which is return on equity (ROE) and independent variables which are firm size (FSZE), firm growth (FGROWTH) leverage (LEV), Institutional Shareholding (IS) and Managerial Shareholding (MS).

Table 4.3.1 Summary of Correlation Matrix (2009 – 2013)

VAR	*ROE*	*FSIZE*	*FGRWTH*	*LEV*	*IS*	*MS*
ROE	*1.000*					
FSZE	*-0.022*	*1.000*				
FGROWTH	*-0.869*	*0.010*	*1.000*			
LEV	*-0.380*	*-0.069*	*0.347*	*1.000*		
IS	*-0.155*	*0.286*	*0.079*	*0.037*	*1.000*	
MS	*-0.787*	*-0.005*	*0.659*	*0.284*	*0.048*	*1.000*

SOURCE: OUTPUT FROM SPSS 2015

Table 4.3.1 revealed that all our explanatory variables are negatively correlated with pension funds administrators in Nigeria. This implies that all the explanatory variables move in opposite direction with the financial performance of PFAs in Nigeria. The outcome suggests that firm size is negatively affecting the financial performance which is proxy by ROE of PFA up to the tune of 2.2%. That is, the larger the firm, the lower the reported ROE. Also, firm growth is negatively correlated with financial performance up to tune of 86.9% while leverage of the firm, institution shareholders and managerial shareholding are negatively correlated with financial performance up to the tune of 38%, 15.5% and 78.7% respectively.

4.4 Tolerance value and Variance Inflator Factor

One of the assumptions of classical linear regression model is that there should not be multicollinearity among the explanatory variables included in the model. This section therefore addressed the problem of multicollinearity based on the result generated from the study. Multicollinearity is investigated using Tolerance Value (TV) and Variance Inflation Factor (VIF). Both the TV and VIF are employed in this study to test for multicollinearity of the explanatory variable. The result is shown below:

Table 4.4.1 Summary of Tolerance value and Variance Inflator Factor

VARIABLES	***VIF***	***TV***
Firm Size	*1.097*	*0.912*
Firm Growth	*1.865*	*0.536*
Leverage	*1.152*	*0.868*
Institutional shareholder	*1.097*	*0.911*
Managerial shareholder	*1.778*	*0.563*

SOURCE: OUPTUT FROM SPSS 2015

The result above shows that the study is free from multicollinearity problem as the tolerance value is less than 1 and variance inflation factor is less than 10 which is in accordance with assumption number ‘8’ of classical regression model which states that there should not be

multicollinearity among the explanatory variables included in the regression model. This therefore shows the appropriateness of fitting the model with five explanatory variables.

4.5 Presentation of Regression Result

This section presents the regression result of the dependent variable which is measured by the ratio of earnings after tax to firm's equity and other components of the explanatory variables which are firm size (FSZE), firm growth (PGROWTH), leverage (LEV), Managerial Shareholding (MS) and Institutional Shareholding (IS). The result is shown below:

Regression Result

VAR	*COEFF*	*T-VALUE*	*SIG*
C	*0.905*	*14.373*	***0.000***
FSZE	*0.185*	*0.070*	*0.944*
FGROWTH	*-0.558*	*-9.571*	***0.000***
LEV	*-0.462*	*-1.313*	*0.193*
IS	*-0.121*	*-1.858*	***0.067***
MS	*-0.287*	*-6.095*	***0.000***
R	*0.920*		
R2	***0.846***		
ADJR2	***0.836***		
F-STA	***81.51***		
F-SIG	***(0.00)***		
DW	***1.652***		

SOURCE: OUTPUT FROM SPSS 2015

The analysis of the table above began with the interpretation of the combined effect of both the explanatory variables and the explained variable. The *R* which shows the relationship between the independent and dependent variables shows a value of 0.92. This implies that the explanatory variables are related with the explained variable up to the tune of 92.2%. The R^2 which is the multiple co-efficient of determination gives percentage or proportion of total variation in the dependent variable measured by ROE explained by the independent variables jointly. Hence, the result of R^2 signifies that 0.84% of total variation in the profitability of PFAs

in Nigeria is caused by firm size, firm growth, leverage, institutional shareholding and managerial shareholding.

Finally, on the cumulative result is the fisher statistics of 81.51 with a significant value of 0.000. This indicates the fitness of the model. This therefore means that the determining factors are strongly impacted on the profitability of PFAs in Nigeria. This therefore led to the rejection of the whole stated null hypothesis of study.

4.5.1 Firm size and Financial Performance of PFAs

Firm size as measured by the natural logarithm of total assets has a t-value of 0.070 and a beta value of 0.185 with a significant value of 0.944. This means that firm size is positively and insignificantly related with the financial performance of pension funds administrators in Nigeria which is proxy by ROE. That is, no statistically significant relationship could be found between firm size and financial performance of PFAs. This outcome suggests that firm size is not a determinant factor that could influence the operational performance of PFAs and as such, managerial innovation and competitive capabilities are likely to be evenly distributed across the entire size range of companies. It also implies that the espoused benefits of being a multinational company do not lead to better operational performance. On the basis of these findings, we therefore failed to reject the null hypothesis one, of the study which states that firm size has no significant relationship on the financial performance of PFAs in Nigeria. The findings of this study is in line with those reported by Baumol (1959),Mansfield (1962), Singh and Whittington (1975), Serrasqueiro and Macas (2008), Yang and Chen (2009), Vijayakuma and Tamizhselvan (2012) and Abiodun (2013) and contradicts the findings of Marshall (1961), Yoon (2004), Maja & Josipa (2012).

4.5.2 Firm Growth and Financial Performance of PFAs

Firm growth which measures the rate of market penetration has a *t* value of -9.571 and a co-efficient value of -0.558 with a significant value of 0.000. This implies that firm growth of Pension Funds Administration is negatively, strongly and significantly influencing the financial performance of PFAs and it is significant at 1% level of significance. The negative effect of firm growth is inconsistent with our prior expectation implying that for every 1% increase in firm growth, the financial performance which is proxy by ROE will reduce by 0.56%. The negative relationship between firm growth and financial performance may be as a result of the overwhelming focus of PFAs on various marketing activities to boost their growth to the detriment of their investment because being too obsessed with growth can lead to self-destruction as other important objectives such as effective selection of portfolio to invest in might be neglected. This therefore provides an evidence of rejecting the second hypothesis of the study which states that firm growth has no significance on the financial performance of PFAs in Nigeria.

4.5.3 Leverage and Financial Performance of PFAs

Leverage as measured by the ratio of total debt to equities has a *t*-value of -1.313 and a beta value of -0462 with a *p* value of 0.193. This signifies a negative and insignificant relationship between leverage and financial performance of PFAs in Nigeria. An inverse relationship exists between leverage and financial performance of PFAs which is proxy by ROE. That is the higher the level of leverage, the lower the reported ROE. It can therefore be concluded that leverage is not a determinant factor that could influence and explain the financial performance of PFAs. That is whether there is an increase or decrease in the level of leverage, the financial performance will not be affected in any way. On the basis of these findings, we therefore fail to reject the null hypothesis of the study which states that leverage has no significant impact on the financial performance of pension funds administrators in Nigeria.

4.5.4 Institutional Shareholding and Financial Performance PFAs

The institutional shareholding as measured by a portion of share held by institutional shareholders gives a *t*-value of -11.858 and a coefficient of -0.2121 with a significant value of 0.067. This therefore means that the variable is significant at 10% level of significance. This implies that the institutional shareholders influence the financial performance of pension funds administrators negatively and significantly. The negative effect of the institutional shareholders on financial performance is as well inconsistent with our prior expectation implying that for every #1 increase in the shares held by the institutional shareholders, the financial performance of PFAs will reduce by 0.12k. Our expectation is supported by efficient monitoring hypothesis which advocates that institution investors possess a superior monitoring ability and greater dealing power and resources which could influence the financial performance. In contrary, our result is rather consistent with the conflict of interest hypothesis and strategic alignment hypothesis which postulates that institutional investors seek to maintain business relationships at the expense of increased management control, such behaviours lead to an inefficient monitoring thereby justifying this negative effect of institutional shareholding on the financial performance of pension funds administrators in Nigeria. We therefore reject the fourth hypothesis of the study which states that institutional shareholding has significant impact on the financial performance of PFAs.

4.5.5 Managerial Shareholding and Financial Performance of PFAs

A negative and significant relationship exists between managerial shareholding and financial performance of PFAs as indicated by the *t*-value of -6.095 and a beta value of -0.287 with a significant value of 0.000. This implies that the managerial shareholding is negatively, strongly and significant in influencing and predicting the financial performance of pension funds administrators. The negative effect of managerial shareholding on financial performance of

PFAs is also inconsistent with our prior expectation. This implies that for every 1% increase in the shares held by the managers, the profitability of PFAs will reduce by 0.29%. This implies that the higher the number of shares held by managerial shareholders, the lower the reported ROE of PFAs in Nigeria. We therefore reject the fifth hypothesis of the study which states that managerial shareholding has no significant impact on the financial performance of pension funds administrators in Nigeria.

4.6 Discussion of Research Findings

Firstly, our findings provides statistical and empirical evidence by using five explanatory variables that constitutes the determining factors (firm size, firm growth, leverage, institution shareholding and managerial shareholding) in explaining and predicting the financial performance which is proxy by ROE.

Secondly, the findings revealed that firm size is positively and insignificantly impacting on the financial performance of PFAs in Nigeria. This implies that firm size which is measured by the natural logarithm of total assets only explains the variation in profitability. This signifies that whether there is an increase or decrease in the total asset of PFAs, the profitability will not be affected in any way.

Furthermore, there is a negative and significant impact between firm growth and profitability of PFAs in Nigeria. Thus, it can be concluded that firm growth of PFAs impacted negatively and significantly in explaining and predicting the financial performance of PFAs in Nigeria. Therefore, firm growth is an important variable that affect the profitability of PFAs proxy by ROE.

Leverage revealed a negative and insignificant impact on the financial performance of PFAs in Nigeria. This implies that leverage is not a significant variable that could improve the financial performance of PFAs in Nigeria. Institutional shareholding also has a negative and significant impact on the financial performance of PFAs in Nigeria. This implies that the proportion of shares held by the institutional shareholders reduces the financial performance of PFAs in Nigeria.

Finally, there is a negative and significant impact between managerial shareholding and the financial performance of PFAs firms in Nigeria. The outcome therefore suggests that the higher the proportion of shares held by the managerial shareholders, the lower the reported ROE.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary of Findings

The study investigates the effect of firm characteristics that drive the financial performance of PFAs in Nigeria within the period of 2009-2013 using a sample of eleven (11) PFAs operating in Nigeria. A stack balanced panel regression model was adopted for the purpose of explaining and predicting the impact of explanatory variables on the profitability of PFAs in Nigeria. Our study therefore focused on five explanatory variables (firm size, firm growth, leverage, institutional shareholding and managerial shareholding) as the determining factors and one dependent variable which is profitability of PFAs.

In analyzing the impact of these factors on the financial performance of PFAs, Ordinary Least Square (OLS) technique was employed to ascertain the impact of the explanatory variables on the explained variable. The result suggest that firm growth, institutional shareholding and managerial shareholding significantly impact on the profitability of PFAs in Nigeria. While firm size and leverage are not significant factors that could influence the financial performance of PFAs in Nigeria. The result therefore revealed that firm growth, institution shareholding and managerial shareholding are negatively and significantly influencing the profitability of PFAs while firm size is positively and insignificantly impacting the financial performance, proxy by ROE and finally, the leverage revealed a negative and insignificant impact on the financial performance of PFAs

The result therefore contributes to the finance literature by providing evidence to the factors affecting the financial performance of PFAs in Nigeria. Additionally, the result could provide finance experts, practitioners, regulators as well as investors with valuable insight unto the

complex interaction between different types of determinants and financial performance of PFAs operating in Nigeria.

5.2 Conclusion

This study was undertaken in order to examine the effect of firm characteristics on the financial performance of Pension Funds Administrators in Nigeria. Several proxies were used to estimate their influence on the performance of Pension Funds Administrators. The results of the analysis provide us with evidence that all the explanatory variables have either a positive or negative significant impact in determining the performance of Pension Funds Administrators in Nigeria.

As also observed, adequately managed Pension Funds Administrators have the capability to influence the performance of the capital market. Although, it is not clear whether the Nigeria Pension Funds Administrators are fulfilling this most important function as this study could not establish such in that direction. However, the study has provided a sense of direction to the significant role Pension Funds Administrators play and the extent to which the identified proxies have the capacity to determine Pension Funds Administration in Nigeria.

5.3 Recommendations

(i) The policy makers as well as the management of pension funds administrators operating in Nigeria, particularly those under observation, should be more inclined to attaining optimum utilization in the use of their assets in the course of service delivery.

(ii) Since the analysis of leverage revealed a negative and insignificant relationship with financial performance, it is therefore recommended that pension funds administrators in Nigeria should rely less on external financing (debt). By implication, emphasis should be focused more on internally generated funds instead of alternatives.

(iii) The management of pension funds administrators in Nigeria should not be carried away with the objective of increasing the growth of the firm, they should rather seek for investments in portfolios or portfolio diversifications that can yield more returns with lower risks.

(iv) The number of shares held by Institutional Shareholders should be diffused and their power or internal control reduced in order to abate the tendencies of their influence on the financial performance of Pension Funds Administrators in Nigeria.

(v) Similarly, the number of shares held by Managerial Shareholders should be reduced in order to mitigate the tendencies of the Managerial Shareholders influence on the financial performance of Pension Funds Administrators in Nigeria.

5.4 Suggestions for further Research

This study has considered only five explanatory variables relating to the financial performance of pension funds administrators operating in Nigeria. Future research studies may consider more variables, both industry specific and macro-economic variables. Again, it is suggested that the explanatory variables used in this study should be regressed on Return on Asset to find the extent of their relationship on the financial performance of PFAs in Nigeria. Other measurement tools of financial performance such as net interest margin and Tobin Q may also need to be used by used.

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APPENDIX

APPENDIX A: DATA AND RESULTS

FIRMS	ID	YEAR	ROE	FSZE	FGROWTH	LEV	IS	MS
TRUSTFUND	1	2009	0.03037	0.101781	0.659844	0.42266	10.21	0.3
PENSIONS PLC	1	2010	0.01122	0.10764	0.604023	0.605623	10.29	0.15
	1	2011	0.00641	0.21761	0.666667	0.438892	15.29	0.26
	1	2012	0.01968	0.703989	0.661199	0.461253	13.29	0.07
	1	2013	0.02724	0.370809	0.763261	0.456675	15.29	0.7
STANBIC IBTC	2	2009	6.2E-05	0.489709	0.700776	0.535779	14.71	0.53
PENSION MANAGERS	2	2010	0.0243	0.109097	0.731941	0.4664	14.71	0.5
	2	2011	0.01283	0.127305	0.696716	0.405727	14.71	12.58
	2	2012	0.02392	0.131828	0.684104	0.333946	14.71	0.64
	2	2013	20.4584	0.192024	0.716303	0.290703	11.63	0.59
APT PENSION FUNDS	3	2009	0.02328	0.109058	0.53866	0.466667	11.63	0.65
MANAGERS LTD	3	2010	0.01831	0.43559	0.547881	0.369356	11.63	0.89
	3	2011	0.02796	0.136657	0.655236	0.440443	12.05	0.7
	3	2012	0.02488	0.104544	0.684963	0.488473	13.05	0.7
	3	2013	0.02816	0.207377	0.694963	0.507084	11.26	0.77
PENSIONS ALLIANCE	4	2009	0.02496	0.259853	0.691301	0.538719	12.06	0.84
LIMITED	4	2010	0.01498	0.433633	0.736971	0.484279	11.63	0.87
	4	2011	0.01726	0.191895	0.73711	0.516555	11.63	0.9
	4	2012	0.02485	0.128004	0.73376	0.548782	11.63	0.89
	4	2013	0.02595	0.20111	0.209089	0.32	11.63	0.83
ARM PENSION	5	2009	0.02737	0.145166	0.378808	0.45135	11.63	0.14
MANAGERS (PFA)	5	2010	0.02429	0.196394	0.515367	0.456215	16.9	0.14
LIMITED	5	2011	0.01115	0.177089	0.649668	0.3208	11.8	0.7
	5	2012	0.0213	0.189677	0.713664	0.416617	11.9	0.8
	5	2013	0.03415	0.160459	0.499344	0.639551	11.9	0.89
PENMAN PENSIONS	6	2009	0.02812	0.165885	0.539983	0.456554	16.49	0.89
LIMITED	6	2010	0.03963	0.110457	0.579146	0.321922	16.49	0.93
	6	2011	0.00141	0.1941	0.497881	0.401823	13.46	0.86
	6	2012	0.01427	0.11218	0.524259	0.306236	12.64	0.81
	6	2013	0.02254	0.104035	0.68816	0.243041	12.4	0.9
LEGACY PENSION	7	2009	0.01395	0.121425	0.636499	0.302456	18.98	0.84
MANAGERS LTD	7	2010	0.0463	0.113764	0.664865	0.267928	10.06	0.85
	7	2011	0.04143	0.108409	0.746155	0.210686	10.19	0.85
	7	2012	0.04202	0.299078	0.710118	0.235491	10.19	0.75
	7	2013	0.04172	0.291577	0.747777	0.249058	10.19	0.59
SIGMA PENSIONS	8	2009	0.03286	0.192371	0.742803	0.168962	10.19	18.27

	8	2010	0.03209	0.393633	0.661798	0.284954	10.19	0.79
	8	2011	0.02951	0.386643	0.65235	0.347361	19.25	0.83
	8	2012	0.02643	0.256834	0.618045	0.431968	14.19	0.58
	8	2013	0.04263	0.264763	0.633528	0.457898	14.19	0.61
IGI PENSION FUND	9	2009	0.04246	0.173798	0.648739	0.485386	14.19	0.64
MANAGERS LTD	9	2010	0.0618	0.284094	0.663654	0.514523	14.19	0.76
	9	2011	0.05275	0.179659	0.731764	0.279244	14.19	0.69
	9	2012	0.04979	0.26279	20.21728	0.327371	14.19	0.55
	9	2013	0.03041	0.276753	0.756097	0.343719	17.67	27.23
LEADWAY PENSURE	10	2009	0.01734	0.190894	0.706455	0.418445	17.67	0.76
	10	2010	0.00655	0.179092	0.626135	0.404157	13.78	0.88
	10	2011	0.01525	0.270817	0.640353	0.474706	11.13	0.84
	10	2012	0.03294	0.185773	0.777757	0.219133	10.33	0.83
	10	2013	0.04412	0.210143	0.763249	0.302908	15.19	0.67
FUTURE UNITY	11	2009	0.01415	0.121414	0.76503	0.267701	15.18	0.67
GLANVILLS PESIONS	11	2010	0.01118	0.228594	0.279425	0.24112	19.99	0.74
LIMITED	11	2011	0.01293	0.222288	0.734729	2.983616	19.98	0.76
	11	2012	0.01315	0.155991	0.767105	0.185739	14.2	0.5
	11	2013	0.01304	0.111807	0.778405	0.183795	14.2	0.38

APPENDIX B: POPULATION OF THE STUDY

S/No	FIRM
1	AIICO Pension Managers Limited
2	APT Pension Fund Managers Limited
3	ARM Pension Managers Limited
4	CrusaderSterling Pensions Limited
5	Fidelity Pension Managers
6	First Guarantee Pension Limited
7	Future Unity Glanvils Pensions Limited (FUG)
8	GTB-AM Pensions Limited
9	IEI-Anchor Pension Managers Limited
10	IGI Pension Fund Managers Limited
11	Leadway Pensure PFA Limited
12	Legacy Pension Managers Limited
13	NLPC Pension Fund Administrators Limited
14	OAK Pensions Limited
15	Penman Pensions Limited
16	Pensions Alliance Limited/PAL Pensions
17	Premium Pension Limited
18	Sigma Pensions Limited
19	Stanbic IBTC Pension Managers Limited
20	Trustfund Pensions Plc

APPENDIX C: **SAMPLE OF THE STUDY**

S/No	FIRM
1	APT PENSION FUNDS MANAGERS LTD
2	ARM PENSION MANAGERS (PFA) LIMITED
3	FUTURE UNITY GLANVILLS PENSIONS LIMITED
4	IGI PENSION FUND MANAGERS LTD
5	LEADWAY PENSURE
6	LEGACY PENSION MANAGERS LTD
7	PENMAN PENSIONS LIMITED
8	PENSIONS ALLIANCE LIMITED
9	SIGMA PENSIONS
10	STANBIC IBTC PENSION MANAGERS
11	TRUSTFUND PENSIONS PLC