

**FIRM SPECIFIC CHARACTERISTICS AND FINANCIAL PERFORMANCE OF
LISTED INSURANCE FIRMS IN NIGERIA**

BY

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NOVEMBER, 2015

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M.Sc/ADMIN/9962/2011-2012

**BEING A DISSERTATION SUBMITTED TO THE SCHOOL OF POSTGRADUATE
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DECLARATION

I declare that the work in this dissertation entitled firm specific characteristics and financial performance of listed insurance firms in Nigeria has been carried out by me in the Department of Accounting, Ahmadu Bello University, Zaria. The information derived from the literature has been duly acknowledged in the text and a list of references provided. No part of this dissertation was previously presented for another degree at this or any other institution.

Hammed Samuel KAZEEM
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DATE

CERTIFICATION

This dissertation, entitled **FIRM SPECIFIC CHARACTERISTICS AND FINANCIAL PERFORMANCE OF LISTED INSURANCE FIRMS IN NIGERIA** by Hammed Samuel KAZEEM meets the regulations governing the award of the degree of Master of Science (M.Sc) in Accounting and Finance of the Ahmadu Bello University, Zaria, and is approved for its contribution to knowledge and literary presentation.

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DEDICATION

This dissertation is dedicated to Almighty God, the giver of knowledge and understanding, and also to my beloved parents Mr. and Mrs. Adegbola

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ABSTRACT

Firm specific characteristics have been identified to have an immeasurable role in enhancing the financial performance of companies, but available literatures in this area are mixed and inconclusive. Owing to these mixed and inconclusive findings, the study therefore investigates the impact of firm specific characteristics on the financial performance of listed insurance firms in Nigeria. Financial performance is the dependent variable while age of insurance company, firm size, premium growth, loss ratio, liquidity and leverage are independent variables. The population of the study consists of thirty (30) listed insurance firms as at 31st December 2013. Twelve of the listed insurance firms are selected to form the sample of the study for the period of eight years (2006-2013). The study employed multiple regressions as tool for analysis. Secondary data obtained from the financial statements of the companies were analyzed. Panel data techniques (fixed and random effects model) were utilized to investigate the impact of firm specific characteristics on financial performance and Hausman specification confirmed that random effect model is more appropriate. The result shows that firm size, loss ratio, liquidity, and leverage are the most important determinants of financial performance. Hence, firm size, loss ratio and leverage are negatively related. In contrast, liquidity ratio is positively and significantly related with financial performance. Lastly, age of insurance company and premium growth are not significantly related with financial performance of listed insurance firms in Nigeria. For insurance companies to achieve a greater profit and competitiveness in the market, it is therefore recommended that the companies should conduct careful evaluation and take into consideration firm specific characteristics (firm size, loss ratio, liquidity and leverage) that influence the financial performance of the company before making major business decision as this will go a long way in improving their financial performance.

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CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The insurance industry plays a major role in the society as they stimulate the economy at large. This is because the sector is part of immune and repair system of an economy and successful operation of the industry can set energy for other industries and development of an economy (Abate, 2012). Indeed, a well-developed and evolved insurance industry is critical to conditions for economic development as it provides long term funds for long term investment and at the same time strengthens the risk taking ability of the country.

The importance of insurance companies become more obvious for businesses and individuals as they indemnify business losses, thereby safeguarding economic activities in the society from collapse. Insurers provide economic and social benefits in the society not only by prevention of losses, but through reduction in anxiety and fear, increase employment and also through accumulated premium generated for long term investment. Thus, like any other industry, insurance companies are expected to continue improving their performance so as to sustain their role in the society.

The performance of any business firm not only plays the role to increase the market value of that specific firm but also leads toward the growth of the whole sector and the overall success of the economy (Ahmed, Naveed & Usman). In this regards, a sound financial management should be consistent with the drives to improve and increase profitability so as to meet the goal of individual firm owners. The primary desire of any firm is to earn more profit and enhance the

wealth of its stakeholders (Gitman, 2007). However due to challenges in internal and external environment, most firms are unable to meet their goals. In other words, performance is a function of the ability of an organization to gain and manage its resources in several different ways so as to develop competitive advantages (Iswatia & Anshoria, 2007).

The performance of insurance companies could be affected by both internal and external factors. The internal factors are those management controllable factors which account for the inter-firm differences in profitability. On the other hand, external factors are uncontrollable factors which affect firms decision and which management have no control over. However, factors such as growth in money supply, interest rate, inflation rate and gross domestic product are macroeconomic or market-specific factors which are out of control of management. Generally, a firm's performance can be estimated using firm attributes as a major determinants of insurance profitability. These attributes are firm size, underwriting risk, leverage, age, growth rate of written insurance premium as well as institution and political environment which plays vital roles besides firm specific factors of organization behavior.

In line with the above explanation, the internal factors which focus on insurer's specific characteristics are grouped into financial and non-financial variables. The financial characteristics are variables which can be derived from the financial statement and profit and loss of insurance companies. These include firm size, premium growth, loss ratio or underwriting of risk, liquidity, tangibility, leverage and so on. On the other hand, non-financial characteristics are those variables which cannot be obtained from the financial statement and profit and loss of

insurance companies. They comprise of age of the firm, management competencies, and scope of operation. Although management competencies lead to good financial performance, it is difficult if not impossible to assess management competencies directly because it is assumed that such competencies will be reflected in the operational performance of insurance firms. This study therefore combined five financial variables (firm size, premium growth, loss ratio, liquidity, and leverage) coupled with one non-financial variable which is age of the firm as proxies for firm specific characteristics against the financial performance of listed insurance firms in Nigeria. This study therefore embarks on empirical investigation to find out those firm specific attributes that affect the financial performance of listed insurance firms in Nigeria

1.2 Statement of the Research Problem

Insurance industry plays a crucial role in fostering commercial and infrastructural businesses. From the latter perspective, it promotes financial and social stability; mobilizes and channels savings; supports trade, commerce and entrepreneurial activity and improves the quality of the lives of individuals and the overall wellbeing in a country (Malik, 2011). To achieve this role, insurance companies are expected to be financially strong and solvent enough through profitability in their operations.

The poor performance of insurance firms in Nigeria as noted by Agabi (2009) stemmed from several years of non-payment of claims by underwriting firms. This tradition of defaulting in claims by insurance firms in Nigeria resulted in reduction of their goodwill which translated to poor image of the sector and as a result, confidence in the sector seems to have eroded significantly. As such, Nigerians no longer consider insuring their valuables due to confidence

crisis in the sector. In Nigeria today, there are evidence of performance of several industries such as banking and other financial institutions, however, the insurance sector is not responding appropriately to economic growth due to confidence crises in the sector. This implies that the overall financial performance of insurance firms in Nigeria is weak except for those who have diverse sources of investment.

Measuring the financial performance of insurance companies has therefore gained significant attention in the developed and some developing countries in the area of business and corporate finance literature. As underwriters, these companies are not only providing good mechanism for transferring risk but also help to boost entrepreneurial confidence in appropriate way so as to support investment growth and general economic activities.

Profitability is a vital concern to all groups who have a direct or indirect interest in the firm. In spite of these vital roles that profit plays in the going concern of insurance firms, the profitability status of most insurance firms operating in Nigeria in relation to firm age, firm size, premium growth, loss ratio, liquidity and leverage of the firm have not attracted much attention of researchers in area of finance. This may be attributed to lack of thorough evaluation of factors that play critical role in profit realization of insurance firms in Nigeria. Therefore, it is of interest to know the extent to which firm specific characteristics (firm age, firm size, premium growth, loss ratio, liquidity and leverage) affect the financial performance of listed insurance firms in Nigeria. The firm specific characteristics of the insurance firms are to be assessed to provide valuable information in regards to their effects on performance.

There have been series of studies aimed at isolating firms specific characteristics with performance of insurance companies in developed countries (Greene & Segal, 2004, Deshng, Sandra & Lianga, 2007, Adams, Hardwick & Zou 2008, Al-Shami, 2008, Dieter, 2011, Kozak, 2011 and Charumathi, 2012), while some focused on developing countries (Adams & Buckle, 2003, Ahmed, Naveed & Usman 2011, Abate, 2012, Daniel & Tilahun, 2012, Akotoye, Osei & Gemegah, 2011, Almajali, Sameer & Yahya 2012 and Malik, 2011). However, to the best of our knowledge, none has been done on this sector in Nigeria. Most literatures focus on factors influencing the performance of banks rather than insurance companies (Aburime 2008, Buba 2009, Ani *et al* 2012 and Akano 2014). Similarly, the outcome of the studies conducted in developed and some developing countries may not be applicable to insurance firms in Nigeria simply because the environment in which the insurance firms operate differs in terms of supervision, regulation and operation. In addition, variables that were used in other studies, especially from developed market may not be consistent with rudimentary Nigeria insurance industry. To this end, the relationship between the firm characteristics and financial performance of insurance firms in Nigeria calls for an empirical investigation. Therefore, mere extension of the findings of studies in other countries with their different conditions to Nigeria is not possible.

1.3 Research Questions

The study therefore addresses the following questions:

- i How does age of insurance firms affect the financial performance of listed insurance firms in Nigeria?
- ii To what extent does firm size influence the financial performance of listed insurance firms in Nigeria?

- iii what impact does premium growth rate has on the financial performance of listed insurance firms in Nigeria?
- iv What is the contribution of loss ratio to financial performance of listed insurance firms in Nigeria?
- v How does liquidity influence the financial performance of listed insurance firms in Nigeria?
- vi To what extent does leverage has on the financial performance of listed insurance firms in Nigeria?

1.4 Objectives of the Study

The main objective of this study is to examine the impact of firm specific characteristics on the financial performance of listed insurance firms in Nigeria for the period of 2006 to 2013.

The specific objectives are to:

- i Examine the impact of age of the firm on the performance of listed insurance firms in Nigeria
- ii Evaluate the contribution of firm size to the performance of listed insurance firms in Nigeria
- iii. Ascertain the impact of premium growth rate on the performance of listed insurance firms in Nigeria.
- iv. Analyze the impact of loss ratio on the performance of listed insurance firms in Nigeria.

- v. Determine the impact of liquidity on the performance of listed insurance firms in Nigeria.
- vi. Examine the impact of leverage on the performance of listed insurance firms in Nigeria.

1.5 Statement of Hypotheses

Following the above stated objectives, below are the hypotheses formulated in null form:

- H₀₁:** Age of the firm has no significant impact on the financial performance of listed insurance firms in Nigeria.
- H₀₂:** Firm size has no significant impact on the financial performance of listed insurance firms in Nigeria.
- H₀₃:** Premium growth rate has no significant impact on the financial performance of listed insurance companies in Nigeria.
- H₀₄:** Loss ratio has no significant impact on the financial performance of listed insurance firms in Nigeria
- H₀₅:** Liquidity has no significant impact on the financial performance of listed insurance firms in Nigeria.
- H₀₆:** Leverage has no significant impact on the financial performance of Nigerian listed insurance firms.

1.6 Scope of the Study

The study investigates the impact of firm specific characteristics on the financial performance of listed insurance firms in Nigeria. In order to evaluate this impact, the study was conducted for the period of eight years that is from 2006 to 2013. The study period emerges from the fact that there were reforms aimed at increased productivity, performance and efficiency in the industry. The period is considered suitable owing to the fact that it marks the beginning of financial reforms where the insurance firms in Nigeria were required to increase their capital base. The study focused on internal factors because they can be easily measured by using data generated from financial statement of insurance firms in Nigeria and they are controllable factors that are within the control of management of listed insurance firms in Nigeria.

1.7 Significance of the Study

This study is based on the fact that most empirical literatures on the firm specific characteristics are mostly focused on the banking sector. By implication, researchers have not paid enough attention to this area in the insurance sector in Nigeria. That is, most empirical literatures are directed towards the banking sector and not insurance sector. To the best of our knowledge, no or little is known about the insurance industry as far as the study under consideration is concerned, most especially from the perspective of an emerging market like Nigeria. This study therefore expected to provide empirical evidence on the firm specific characteristics affecting the financial performance of listed insurance firms in Nigeria.

The study would provide information to investors in the Nigeria Stock Exchange on the firm characteristics and financial performance so as to protect their investment and direct it to the best and viable investment that will yield benefit in future. Similarly, the study would be of help to management in order to identify the indicators of good performance so as to take necessary actions to improve performance of insurance firms and make good decision that will move organization forward.

Government is interested in knowing which companies operate successfully or failed to take the necessary measures to avoid crises of the bankruptcy in these companies. More so, customers are interested in knowing the ability of insurance companies to pay their obligations based on the indicators of success of the companies.

Business professionals are interested in the outcome of this study so as to render professional advice to their client. Policy makers are interested in this study so as to come up with policy to improve the sector. The findings from this study contribute to finance literature by providing evidence that supports the positive role of firms' characteristics in determining the financial performance of listed insurance firms in Nigeria. Additionally, the results could provide accounting practitioners as well as regulators with valuable insight into the complex interactions between different types of firms' characteristics and the financial performance of insurance companies.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter examines the conceptual, theoretical and empirical evidence on the research undertaken on the impact of firm specific characteristics and the financial performance of listed insurance companies which will be extensively reviewed. Emphasis is therefore placed on age, firm size, premium growth, loss ratio, liquidity, and as well as leverage as they relate to financial performance of listed insurance companies over the period of eight years from 2006 to 2013.

2.2 Conceptual Analysis

The use of application of concept is of paramount importance in social science researches. This is because the way and manner they are used in researches could be different from its general application and interpretation. Therefore, this chapter discussed the operationalized concepts used in this study. The Concepts highlighted and discussed in this section are the firm characteristics (firm age, firm size, premium growth, loss ratio, liquidity, and leverage). More so, this section further explains the concept of insurance financial performance proxied by Return on Assets (ROA).

2.2.1 Firm Specific Characteristics

Firm specific characteristics are factors that are mostly under the direct control of management. The firm specific indicators include firm size, liquidity, growth rate of premium, leverage, underwriting risk and age of the firm. On the other hand, the macroeconomic indicators are those

factors that are beyond the control of management. This includes interest rate, GDP, and industry size (Sumaira & Amjad, 2013). This means that the financial performance of insurance companies could be ascertained using firm specific attributes (internal attributes) and macroeconomics variables (external attributes) as major determinants of profitability of the companies.

Malik (2011) clearly classified the internal attributes into two major sub-categories, namely, the financial variables and non-financial variables. From his explanation, he regarded financial variables as determining factors which are directly driven from items in a balance sheet and profit and loss accounts. This includes size, leverage, liquidity, premium growth, loss ratio and tangibility of asset. On the other hand, the non-financial variables are those factors which cannot be driven from the items in the balance sheet and profit and loss accounts.. The non-financial variables are classified as management quality or competency, efficiency and productivity, age, and scope of operation (Yuqili, 2007).

Following the work of Adams and Buckle (2003) in Bermuda, Abate (2011) in Ethiopia, Malik (2013) in Pakistan, Almajali and Yahya (2012) in Jordan, Daniel and Tilahun (2012) in Ethiopia, Sumaira and Amjad (2013) in Pakistan, Al-shami (2008) in United Arab Emirates among others combined both financial and non-financial statement variables as proxy for firm attributes in relation to financial performance of insurance firms.. Other studies conducted by Akotey, Osei and Gemegah (2011) in Ghana, Charumathi (2012) in Indian, Ahmed *et al* (2011) in Pakistan, Browne and Hoyt (2001) in United Kingdom among others used financial statement variables as explanatory variables in determining the financial performance of insurance firms.

There are different forms of company characteristics depending on the nature of the research to be conducted. For the purpose of this study, six firm specific attributes as stated earlier were considered and discussed.

Liquidity measures the ability of managers in insurance and reinsurance companies to fulfill their immediate commitments to policy holders and other creditors without having to increase profits on underwriting and investment activities and/or liquidate financial assets (Adam & Buckle 2000). Liquidity refers to the degree to which debt obligations coming due in the next 12 months can be paid from cash or assets that will be turned into cash. It is usually measured by the current assets to current liabilities (current ratio). It shows the ability to convert an asset to cash quickly and reflects the ability of the firm to manage working capital when kept at normal levels.

A firm is required to maintain a balance between liquidity and profitability while carrying out its day to day operations. Liquidity is a precondition to ensure that firms are able to meet their short-term obligations and continued flow can be guaranteed from a profitable venture. The importance of cash as an indicator of continuing financial health should not be surprising in view of its crucial role within the business. This requires that business must be run both efficiently and profitably. In the process, an asset-liability mismatch may occur which may increase firm's profitability in the short run but at a risk of its insolvency. It should be noted that too much focus on liquidity will be at the expense of profitability (Gitman, 2007). A firm can use liquid assets to finance its activities and investments when external finance is not available or it is too costly. Higher liquidity would allow a firm to deal with unexpected contingencies and to cope with its obligations during periods of low earnings (Liargovas & Skandalis, 2008).

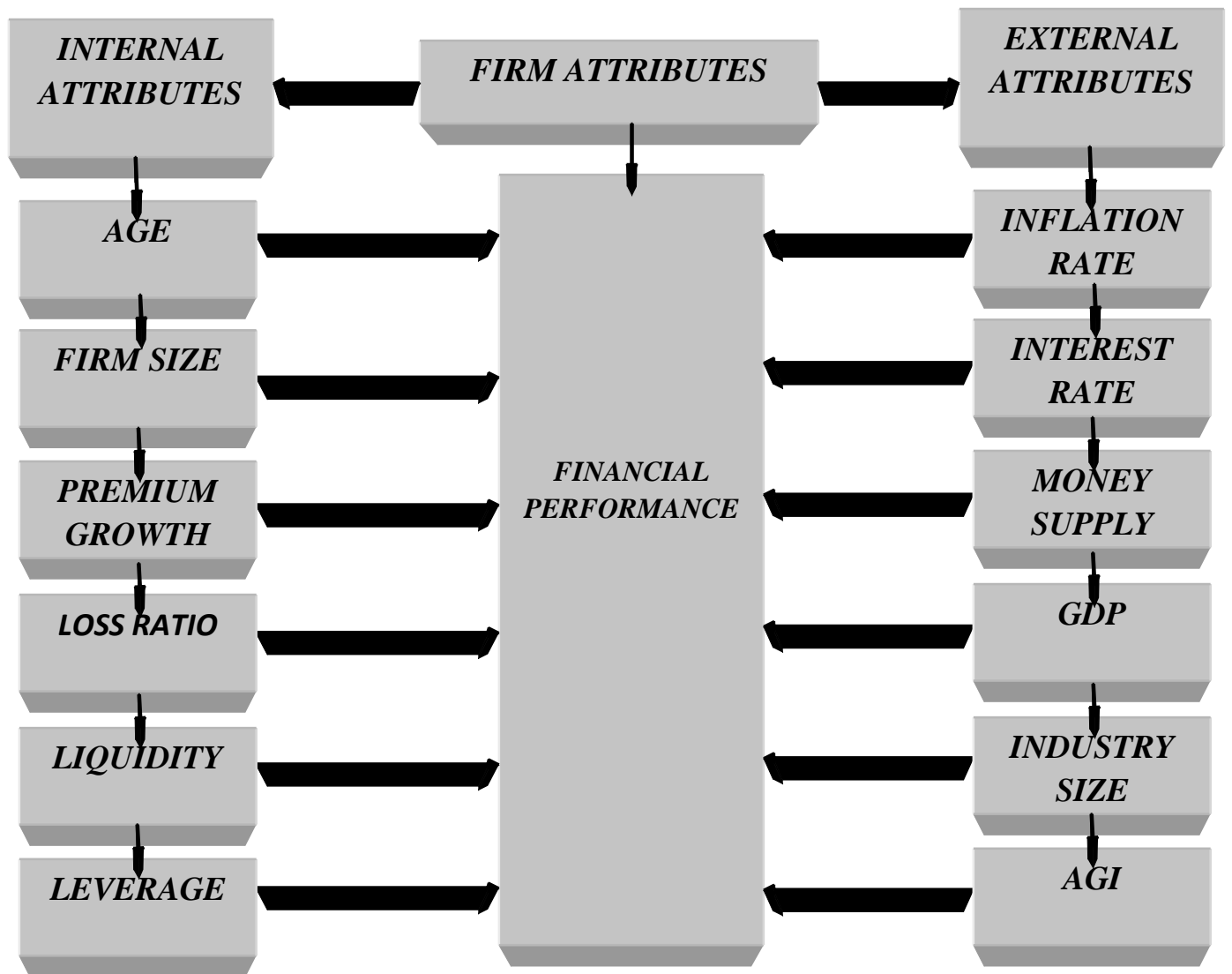
Leverage is measured by the ratio of total liabilities to total assets. It shows the degree to which a business is utilizing borrowed money. Companies that are highly leveraged may be at risk of bankruptcy if they are unable to make payments on their debt; they may also be unable to find new lenders in the future. Leverage is not always bad because it can increase the shareholders' return on their investment and make good use of the tax advantages associated with borrowing. The degree of financial leverage reflects a company's ability to manage their economic exposure to unexpected losses.

Companies that have been in the market for a long period of time have acquired reputation, since they have proven their ability to fulfill long-term contract obligations and their financial stability. The company age can be calculated straightforwardly for all companies. The age factor is scaled by considering the natural logarithm of company age.

Underwriting Risk or loss ratio is measured by the ratio of incurred claims to premium earned. Loss ratio reflects the adequacy, or otherwise, of insurers' underwriting performance (Adams & Buckle, 2003). Sound underwriting guidelines are pivotal to an insurer's financial performance. The underwriting risk depends on the risk appetite of the insurers.

Newly established firms are not particularly profitable in their first years of operation, as they place greater emphasis on increasing their market share, rather than on improving profitability Athanasoglou *et al* (2005) as cited in the work of Abate (2012). Similarly, Yuqi li (2007) indicate that older firms are expected to be more profitable due to their longer tradition and they have built their reputation over the years.

Theoretically, the level of firm's profit is influenced by the level of revenue and expenditure. These two factors revenue and expenditure are influenced by firm specific factors (financial and non-financial factors), industry features and macro-economic variables (Buyinza *et al* 2010). To appreciate the argument put forward by Buyinza *et al* (2010), the diagram below set out the two level factors that determine the financial performance of insurance companies, but for the purpose of this research, emphasis is placed on internal factors because is our area of concentration.



SOURCE: AUTHOR DESIGN BASE ON LITERATURE

Following the above diagram, the performance of insurance companies can be appraised at the internal and external levels of the economy. The internal factors refer to how firm-specific attributes such as financial and non-financial characteristics affect the performance of insurance companies. The external factors are macro-economic factors that influence the financial performance of which the firms have no control over.

2.2.2 Financial performance

It has been known from the literatures that the performance of corporate organizations has been one of the major concerns of management experts, investors and as well as researchers. In view of this, financial performance is the most important and reliable indicator as it gives a broad indicator of the ability of companies to raise their income level (Ahmed *et al*, 2011). This therefore makes the financial performance to be one of the most important objectives of financial management because one of the goals of financial management is to maximize the owner's wealth and profitability which in turn indicates better financial performance (Malik, 2011).

The study of firm performance has been an inexhaustible subject 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 are the key measures of firm's overall efficiency and performance widely used by stakeholders. 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.

Malik (2011) points out various ways to measure financial performance. This includes Return on asset (ROA), Return on equity (ROE) and Return on invested capital (ROIC). All these are different from each other but provide a clear picture of management's effectiveness and efficiency.

Regarding Return on asset (ROA), it reveals how much profit a company earns for its assets. That is, it serves as an indicator of how profitable a company is relative to its assets and gives an idea as to how efficient management is in using its assets to generate earnings. Assets include cash in bank, account receivable property, equipment, inventory and furniture.

Return on equity (ROE) On the other hand, measures the rate of return on the ownership interest (shareholder's equity) of common stockholders; therefore it shows how well a company uses investment funds to generate earnings growth. Finally, Return on invested capital (ROIC) is a measure used to assess a company's efficiency in allocating the capital under its control in profitable investment. This metric gives indication of a company's actual capacity to generate returns through utilization of its productive assets. Comparing a company's ROIC with its weighted average cost of capital (WACC) reveals whether invested capital is used efficiently or not.

For insurance firms specifically, Greene and Segal (2004) assert that the performance of insurance companies in financial terms is normally expressed in net premium earned from underwriting activities, annual turnover, return on investment, and return of equity. These measures could be classified as profit performance measures and investment performance measures. However, most researches (Daniel & Tilahun, 2012, Iswatia & Anshoria, 2007) in the area of insurance and profitability revealed that the key indicator of a firm's performance is ROA which is defined as profit after tax divided by total assets. Hardwick (1997), Malik (2011),

Ahmed *et al* (2011) and Abate (2012) suggested that although there are different ways to measure financial performance, it is better to use ROA instead of alternatives Return on Equity (ROE). This is because an analysis of ROE disregards financial leverage and risks associated with it as a measure of profitability in insurance companies.

2.2.3 Insurance business

Dieter (2011) defines insurance as the identification of purchaser of an insurance contract against losses which may arise from the occurrence of specified type of events after the payment of a consideration called premium. Similarly Samuel (2011) as cited in the work of Tanveer (2006) linked the definition of insurance to the two important schools of thought, these are; (i) transfer school and (ii) pooling school of thought. According to transfer school, insurance refer to as a devise for the reduction of uncertainty of one party called the insured through the transfer of particular risks to another party called the insurer who offers a restoration at least in part of economic losses suffered by the insured (Irving, 1956). On the other hand, according to pooling school, Alfred (1985) as cited in the work of Tanveer (2006) opined that the essence of insurance lies in the elimination of uncertainty or risk of loss for the individual through the combination of large number of similarly exposed individuals.

Nigerian Accounting Standard Board, (1997) identifies the two classes of insurance business which are general and life. General insurance business refers to non-life business which their primary role involves protection against losses which may result from occurrence of specified events within specific periods. On the other hand, life assurance business refers to long term

business. It is an insurance business in which the benefits due to the policy holder become payable on the attachment of a stipulate age of death or on the occurrence of a specified event. A company may choose to carry on any of the insurance business specified above while companies undertaking the two together referred to as a composite insurance company.

As reported by Cummins *et al* (1995) that insurance companies serve two primary functions in the economy: (i) as a risk bearing and risk pooling (ii) financial intermediaries. The first function provides a mechanism to transfer the risk of individual or business in exchange for some amount of premium payment. In the intermediation function, insurance firms raise fund by issuing written debt contract and invest the funds in financial markets which also contain some types of market risk. Furthermore, Cummins *et al* (1995) stated that both functions will also trigger the problem of difference in assets and liabilities cash flow because cash flows of the liabilities issued by insurance companies have different patterns and characteristics than the cash flows of the assets they invest in. Smith (1976) reported that insurance contracts can also be viewed as package of option contract which need to be well managed in order to minimize the negative consequences for the company in future.

Tanveer (2006) asserted that insurance company plays the role of transferring risk of channeling funds from one unit to the other (financial intermediation) such as general insurance companies and life insurance companies respectively. This implies that insurance companies are helping the economy of a country one way by transferring and sharing of risk which can create confidence over the occurrences of uncertain event and in another way, insurance companies like other financial institution plays the role of financial intermediation in order to channel financial resources from one to the other. Therefore, the insurance firm can be divided into two broad categories based on their role to the economy. This includes the general/property insurance

companies and life/ health insurance firms. Chen and Wong (2004) summarized specific factors affecting property/liability which is general insurance and life/health insurance profitability separately and again provide valuable guidelines for insurer's financial health. This is because life insurance firms are different from property insurers in terms of operation, investment activities, vulnerability and duration of liabilities. Life insurers are said to function as financial intermediaries while general insurer's function as risk takers (Chen & Wong 2004).

2.2.4 Functions of insurance companies

Insurance companies carried out different functions in the economy and parts of their functions are discussed below:

(i) **Serve as a mean of saving:**

insurance policy serves as a means of saving particularly to those who find it difficult to save. This can be seen in an endowment assurance (under life assurance) where a sum of money is paid as premium for a given period of time after which the insured can recover his money in respect of a loss or not.

(ii) **Loss prevention:**

Insurance encourages loss prevention. Thus if a loss occurs, it affects the economy because the funds used for the replacement could have been used for another purpose. Insurance encourages the reduction of loss for the benefit of the economy. The insurance companies in Nigeria persuade their insured to take proper precaution by increasing premiums (that is premium loading) and granting discounts for loss reduction facilities and no claims periods in many cases, insurer normally refuse to grant cover until their recommended precautions have been taken.

(iii) Efficient Industry and Commercial Market:

In Nigeria, insurance fosters an efficient market place, first by eliminating uncertainty and financial losses resulting from a given set of causes. It thus removes one of the obstacles to competition that is monopoly. It helps to place small firms on a better competitive footing with the rival ones which causes business stability through indemnification. Insurance permits a more efficient utilization and allocation of resources which further enhance the reduction of the price of consumer goods and essential services.

(iv) Credit Facilities Transaction:

Most of the world transaction today is carried out on credit basis, and Nigeria is not an exception. Insurance provides compensation to individuals and organizations for losses resulting from their debtors (that is under credit insurance as provided by the decree of 1982), lenders can confidently lend out after taking a credit insurance policy and bearing in mind that they will be compensated by the insurance companies when their debtors fail to pay them as a result of debtors insolvency, the fund to be tied down is released to economy.

(v) Employment Opportunity:

The insurance is contributing its share in assisting government to tackle the problem of unemployment in Nigeria. The industry provides job opportunities for those in the industry. The fact is that other big industries which provide employment for thousands Nigerians are able to do so as a result of various forms of insurance covers since no National Industrialist would like to establish multi million naira worth of industry without insurance protection in one way or the other. The insurance industry in Nigeria now attracts a large number of graduates of many disciplines to work in the

various areas of operations such as risk management investment research and development.

2.3 Review of empirical literature

This section focuses on related studies on firm specific attributes and financial performance of firms both in developed and developing countries. Emphasis is placed on some of the attributes used in this study as they relate to financial performance of firms.

Yuvaraj and Abate (2013) examined the effects of firm specific factors (age of company, size of company, volume of capital, leverage ratio, liquidity ratio, growth and tangibility of assets) on profitability proxied by Return on Assets in Ethiopia. The sample of the study included nine of the listed insurance companies over nine years (2003-2011). From the regression results; growth, leverage, volume of capital, size, and liquidity were identified as most important determinants of profitability. Hence, growth, size, and volume of capital are positively related. In contrast, liquidity ratio and leverage ratio are negatively but significantly related with profitability. The age of companies and tangibility of assets are not significantly related with profitability. Still in Ethiopia, Daniel and Tilahun (2012) investigated the impact of firm level characteristics (size, leverage, tangibility, Loss ratio (risk), growth in written premium, liquidity and age) on performance of insurance companies in Ethiopia. Return on total assets (ROA) a key indicator of insurance company's performance was used as dependent variable while age of company, size of the company, growth in writing premium, liquidity, leverage and loss ratio were independent variables. The sample includes 9 insurance companies over the period 2005-2010. The results of regression analysis revealed that insurers' size, tangibility and leverage are statistically significant and positively related with return on total asset; however, loss ratio (risk) is statistically significant and negatively related with ROA. Thus, insurers' size, Loss ratio (risk),

tangibility and leverage are important determinants of performance of insurance companies in Ethiopia. However, growth in written premium, insurers' age and liquidity have statistically insignificant relationship with ROA.

Charumathi, (2012) examined the determinants of profitability of in Indian life insurers within the period of 2008-2010. For this purpose, firm specific characteristics such as leverage, size, premium growth, liquidity, underwriting risk and equity capital are regressed against Return on Assets. This study concludes that profitability of life insurers is positively and significantly influenced by the size (as explained by logarithm of net premium) and liquidity. The leverage, premium growth and logarithm of equity capital have negatively and significantly influenced the profitability of Indian life insurers. The study did not find any evidence for the relationship between underwriting risk and profitability. The limitation of the study was the limited period covered. If the period captured by the researcher had increased, there is every tendency that the result of the study would have change.

Akotey *et al* (2011) identified the determinants of profitability in the life insurance industry of Ghana. The study used investment income, underwriting profit and overall net profit as proxies for profitability. The financial statements of ten (10) life insurance companies covering a period of eleven years (2000 to 2010) were sampled and analyzed through panel regression. The findings proved that whereas gross written premiums have a positive relationship with insurers' sales profitability, its relationship with investment income is a negative one. Also, the results showed that life insurers have been incurring large underwriting losses due to overtrading and price undercutting. The results further revealed a setting-off rather than a complementary relationship between underwriting profit and investment income towards the enhancement of the

overall profitability of life insurers. The major drawback of this study is the combination of both the macro and micro determinant variables on life insurance neglecting the non-life insurance. Focusing on both micro and macro determinants variables may not give adequate information regarding their effectiveness in influencing the performance of insurance firms due to the combined effect of both the micro and macro determinants.

Sumaira and Amjad (2013) studied the determinants of profitability in insurance sector of Pakistan with a panel data set of 31 insurance firms (life insurance sector and no-life insurance) of Pakistan from 2006-2011. To investigate the determinants of profitability, panel data techniques (fixed effects and random effects models) were employed and then Hausman's specification test was applied to select the more effective model. The test proved that fixed effects model was the more appropriated model for the study. The outcomes show that leverage, size, earnings volatility and age of the firm were significant determinants of profitability while growth opportunities and liquidity were not significant.

A study by Ahmed *et.al* (2011) investigated the impact of firm level characteristics on performance of the life insurance sector of Pakistan over the period of seven years (2001-2007). Firm size, profitability, age, risk, growth and tangibility were selected as explanatory variables while ROA was taken as dependent variable. The results of Ordinary Least Square (OLS) regression analysis revealed that leverage, size and risk are most important determinant of performance of life insurance sector whereas ROA has statistically more of insignificant relationship with tangibility of assets. However, Malik (2011) discovered a positive and significant relationship between tangibility of assets and profitability of insurance companies and argued that the higher the level of fixed assets formation, the older and larger the insurance

company is. In contrast to this, Yuqi Li (2007) in UK found no significant relationship between tangibility of assets and profitability of insurance companies.

From the above empirical studies, the outcome of their result will only be applicable in the country to which the research is conducted. In Nigeria, the result of their studies may not be applicable simply because of the environment in which the insurance companies operate differ from other countries in terms of supervision, regulation and operation.

2.3.1 Firm age and financial performance

Age of the firm is one of the non-financial factors in explaining and predicting the financial performance of companies and it is measured by taking difference between observation and establishment year of the company and thereafter taking natural logarithm of the outcome (Malik, 2011). In literature, age is seen as the reputation of the company because the companies that have been in the market for a long period of time have acquired reputation since they have proven their ability to fulfill long term contract obligations and their financial strength (Dieter 2011). Betra (1999) and Lumpkin and Dess (1999) argued that firm age has an influence on its performance. The reasons for this assertion were clearly stated in the work of Liargovas and Skandals (2008) that older firms are more experienced, have enjoyed the benefits of learning and are not prone to liabilities of newness and can therefore enjoy superior performance. In a similar vein, older firms may also benefit from reputation effects which allow them to earn higher profit margin on sales (Almajali, 2012). In view of this, Swiss Re (2008) in his study found that there is a significant positive association between age of the company and profitability. That is, the older the firm, the better the performance. He also opined that age is the strongest determinant of profitability.

In line with the above, Almajali and Yahya (2012) argued that an older well established company is likely to be more proficient in gathering, processing and releasing information when needed because of learning experience. In a similar vein, Liargovas and Skandal (2008) opined that older firms are prone to inertia and the bureaucratic ossification that goes along with age; they might have developed routines which are out of touch with market conditions. In this case, an inverse relationship between firm's age and financial performance could be observed.

Empirical evidence with respect to firm's age and financial performance however appears to be inconclusive. While Yuqili (2007), Browne and Hoyt (2001) and Swiss Re, (2008) found a positive significant relationship between age and financial performance of insurance companies, under review. On the other hand, Sumaira and Amjad (2013) found a negative significant relationship. However, Yavaraj and Abate (2013), Ahmed *et al* (2011), Abate (2012), Malik (2011), Al-shami (2008) and Daniel and Tilahun (2012) did not find any significant relationship between age and firm performance.

2.3.2 Firm size and financial performance

Empirically, firm size is measured as natural logarithm of total asset of a company. It is however established in literatures that company size is positively and strongly related to financial performance (Ahmed *et al* 2011). The positive relationship is supported by Hardwick (1997) who opined that larger insurance companies usually have greater capacity or strength for dealing with adverse market fluctuations than small companies. In addition, larger companies are better able to recruit skillful employees with professional knowledge compared with small companies and finally, the larger insurance companies enjoy economies of scale in terms of labour cost which is the most essential production factor for delivery insurance services. Similarly, Wyn

(1998) posited that large corporate size also enables insurers to effectively diversify their assumed risks and respond more quickly to changes in market conditions.

Pi and Timme (1993) suggested that operational performance could be inversely related to firm size. This is supported by the argument put forward by Jensen and Murphy (1990) that as an organization grows, it often becomes more difficult for owners to efficiently and effectively monitor and control aberrant behaviors by managers. In view of this, managers have incentive to pursue corporate size related objectives such as increasing market share rather than maximizing shareholders wealth. In addition, Majumdar (1997) opined that as firms become larger, they might suffer from inefficiencies leading to inferior financial performance. Therefore theory is equivocal on the precise establishment of the relationship between the firm size and operational performance of companies.

Several studies have therefore been conducted to examine the effect of firm size on financial performance. However, the empirical evidence of the relationship between firm size and financial performance reveals mixed results. For example, recent studies conducted internationally by Yavaraj and Abate (2013), Daniel and Tilahun (2012), Abate (2012), Almajali and Yahaya (2012) and Malik (2011) suggested that firm size is positively and strongly related to financial performance of insurance companies. On the other hand, study conducted by Adams & Buckle (2000) found no significant relationship between firm size and financial performance of insurance companies.

2.3.3 Premium growth rate and financial performance

It has been reported from related literature that premium growth is another important financial variable that influences the financial performance of insurance companies. Therefore the growth

in premium of the firm has been argued to have influenced on the financial performance of insurance companies and this has been studied frequently.

Premium growth as measured by percentage change in total assets or sometimes as percentage change in premium of insurance companies (Abate, 2012). Premium growth rate measures the rate of market penetration (Ahmed *et al*, 2011). Empirical results showed that rapid growth of premium volume is one of the causal factors of insurer's insolvency (kim *et al*, 1995). Chen and Wong (2004) contend that being too obsessed with premium growth can lead to self-destruction as other important objectives such as the effective selection of profitable portfolio to invest in might be neglected.

Empirical works came up with different findings. Some studies are of the view that premium growth has positive and significant influence on the performance of insurance companies (Akotoye *et al* 2011. Ahmed *et al* 2011. Abate, 2012 and Yuvaraj and Ayele, 2013). Based on their outcome, they argued further that growth in premium improves the profitability of the core operations of insurers and their overall performance.

Charumathi (2012) arrived at an inverse relationship between premium growth and firm performance. The reasons behind the negative relationship between premium growth rate and financial performance were stated by Akotoy *et al* (2011). The first reason according to them is the overwhelming focus of most insurance companies on various marketing activities to generate more premiums to the detriment of their investment activities, that is, if more resources, especially human and capital, are directed towards the underwriting of more policies to grow premium with a proportionate concentration of such resources on the management of their assets

and liabilities, the investment income will decline despite an increase in net written premiums. They further argued that much of premiums written are outstanding which sometimes turn out as bad debt.

Study conducted by Sumaria and Amjad (2013) revealed a positive and insignificant relationship between premium growth and financial performance of insurance companies. While Daniel and Tilahun (2012) found positive and insignificant relationship between premium growth and financial performance of insurance firms in Ethiopia

2.3.4 Loss ratio and financial performance

Another important financial variable that affects the financial performance of insurance companies is attributed to loss ratio. Empirically, underwriting risk is measured by the loss ratio i.e. annual losses incurred divided by annual premiums earned (Hrechaniuk & Talavera, 2007). In other word, underwriting risk reflects the adequacy or otherwise of insurers underwriting performance (Adams & Buckle, 2003). As opined by Fama and Jensen (1983) that organizations that engage in risky activities are likely to have more cash flows than entities whose management is more averse to risk taking. As a result of this, insurers that underwrite risky business such as catastrophe coverage will therefore ensure that good standard of management are applied to mitigate their exposure to underwriting losses ex-ante and maximize returns on invested assets ex-post. Similarly, Oppenheimer and Scharbaum (1983) opined that managers in insurance and re-insurance companies that are engaged in risky lines of insurance will give more discretion to respond to market events than their counterpart in companies that are engaged in less risky

business activities. Such decision making discretion could improve annual operational performance by encouraging managers to increase cash flows through risk taking.

On the other hand, excessive risk taking could adversely affect the annual performance of insurance companies. For example, unanticipated market forces, such as enhanced competition and a sharp fall in share prices could limit management's ability to increase annual premiums and investment income to compensate for losses arising as a result of poorly priced risks. Furthermore, high annual insurance losses will tend to increase the level of corporate management expenses ex-post (for example, claims investigation and loss adjustment costs) that could further exacerbate a decline in reported operation performance. In contrast, insurance companies with lower than expected annual losses are likely to have better operational performance because they do not incur such high monitoring and claims handling costs.

Empirical results with respect to loss ratio and financial performance of insurance companies came up with mixed results. While studies conducted by Malik (2011) and Ahmed *et al* (2011) reported that there exists negative and significant relationship between loss ratio and the performance of quoted insurance companies. Charimathi (2012) and Adams and Buckle (2000) reported a positive and insignificant relationship between loss ratio and financial performance of insurance companies.

2.3.5 Liquidity and financial performance

Another aspect of firm specific factor that determine the financial performance of companies is the liquidity as confirmed in related literatures. Liquidity of the firm is an important factor that influences the performance of the firm (Chen & Wong, 2004). Liquidity in its general sense is

referred to as the ratio of current assets to current liabilities. In other words, an assessment of an organizational ability to meet its current obligations when they fall due is termed liquidity.

From the context of insurance companies, liquidity is referred to as the probability of insurance companies to pay its debt which include operating expenses and payment for losses/benefits under insurance policies. It shows the ability to convert an asset to cash quickly and also reflect the ability of the firm to manage its working capital when kept at normal level. A firm can use liquid assets to finance its activities and investments when external finance is not available or it is too costly (Almajali & Yahya, 2012). On the other hand, Liargovas and Skandals (2008) articulated that higher liquidity would allow a firm to deal with unexpected contingencies and to cope with its obligation during the period of low earnings.

In line with the explanation above, Daniel and Tilahun (2012) revealed that companies with more liquid assets are less likely to fail because they can realize cash even in very difficult situation. It is therefore expected that insurance companies with more liquid assets will outperform those with less liquid assets. However, in accordance with the theory of agency costs, higher liquidity of assets could increase agency costs for owners because managers might take advantage of the benefits of liquid assets (Adams & Buckle, 2000).

Empirical evidence with regards to liquidity revealed mixed results. Study conducted by Ahmed *et al* (2011) in Pakistan observed that liquidity has statistically insignificant relationship with return on asset. Several studies have been conducted on the relationship between liquidity and performance of insurance companies under review. Recent studies conducted by Sumaira and Amjad (2013), Daniel and Tilahun (2012) all revealed insignificant relationship between liquidity and financial performance of insurance companies. In contrast, studies conducted by Almajali and Yahya (2012), Browne and Hoyt (2001), and Carson and Hoyt (1995) found that

liquidity is positively and strongly related to financial performance of insurance companies. More also, Abate (2012), Yuvaraj and Abate (2013), found a negative significant relationship between liquidity and performance of insurance companies.

2.3.6 Leverage and Financial Performance

Leverage has been considered as a fundamental variable in explaining firm performance. It is seen as an important factor in explaining the financial performance of an insurance company. Leverage measures the degree to which a business is utilizing debt fund. Financing with debt funds is sometimes advantageous to the shareholder's return on their investment by making use of tax benefits associated with the borrowed funds. Similarly, as predicted by trade off theory which suggests a positive relationship between firm performance and leverage ratio and justified by taxes, agency cost and bankruptcy costs push more profitable firms towards higher leverage. Hence, more profitable firms should prefer debt financing to get benefit from tax shield (Abate, 2012). Therefore, insurance companies could prosper by taking reasonable leverage risk or could become insolvent if the risk is out of control (Daniel & Tilahun, 2012). As argued by Adams and Buckle (2000) which provide evidence that insurance company with high leverage have better operational performance than insurance companies with low leverage. Similarly, a free cash flow hypothesis which was put forward by Jensen (1986) postulated that high financial leverage can increase a company's operational performance because it obliges managers to generate cash flows in order to meet their obligations to fixed claimants.

Contrary to the above, Ahmed *et al* (2011) argued that if companies are highly leveraged, it may result to risk of bankruptcy if they are unable to make payment on their debts, and they may also

be unable to find new lenders in the future. For instance, Chen and Wong (2004) stated that leverage beyond the optimum level could result in higher risk and low value of the firm. Similarly, the risk of an insurer may increase when it increases its leverage. Literatures on capital structure confirmed that firm's value will increase up to optimum point as leverage increases and then declines if leverage is further increased beyond that optimum level (Abate, 2012).

Empirical evidence shows positive and significant association between financial leverage and firm performance. Carson and Hoyt (1995) and Daniel and Tilahun (2012), found that leverage is significantly and positively related to the financial performance of insurance companies. Conversely, a negative relationship was found between leverage and financial performance of insurance companies by Browne and Hoyt (2001), Ahmed *et al* (2011), Sumaira and Amjad (2013) and Yuvaraj and Abate (2013).

2.4 Theoretical framework

There is no universal theory on the firm specific characteristics and financial performance that could be used to underpin this study but there are several useful conditional theories that attempt to approach the determination of financial performance. These theories include (i) agency theory (ii) resource based theory. The explanation of each of the theory is provided below:

2.4.1 Agency theory

The principal-agent problem or agency dilemma occurs when one person or entity (the "agent") is able to make decisions on behalf of another person or entity (the "principal"). The dilemma exists because sometimes the agent is motivated to act in her own best interests rather than those of the principal. Researchers have extensively studied the conflict between managers and owners

regarding the functioning of the firm, although, the research on understanding the differences in behavior of different shareholder identities is limited. Berle and Means (1932) indicates that with an increase in professionalism of management, firms might be operating for the managers' benefit rather than that of the owners. The principal-agent framework is used by Jensen and Meckling (1976) to explain the conflict of interests between managers and shareholders. The agency problem developed by Coase (1960), Jensen and Meckling (1976) and Fama and Jensen (1983)) is an essential part of the contractual view of the firm.

Problem arises where the two parties have different interests and asymmetric information (the agent having more information), such that the principal cannot directly ensure that the agent is always acting in his best interests, particularly when activities that are useful to the principal are costly to the agent, and where elements of what the agent does are costly for the principal to observe. Moral hazard and conflict of interest may arise. Indeed, the principal may be sufficiently concerned at the possibility of being exploited by the agent that he chooses not to enter into a transaction at all, when that deal would have actually been in both parties' best interests: a suboptimal outcome that lowers welfare overall. The deviation from the principal's interest by the agent is called agency costs (Lucian & Jese, 2004).

Berger *et al* (1997) contend that the factors underpinning the operational Performance of financial services firms are often difficult to discern because of the intangible nature of outputs and the lack of transparency over resource allocation decision. Nonetheless, insights from the financial economics literature, such as those provided by agency theory, can provide important insights into the determinants of operational performance in financial services firms. For instance, agency theory provides that relationships between owners of firms (principals) and

managers (agents) are maintained by contracts (Jensen & Meckling, 1976). As the separation between ownership and control diverges due to corporate growth, contracts (for example, Compensation schemes) have to be introduced to ensure the alignment of owners' and managers' economic interests. As a result, operational performance will be a function of the effectiveness of contractual mechanisms in attracting, retaining and controlling managerial talent in ways that maximize owners' wealth.

Agency theory has been used by various researches in determining the financial performance of the firm, where a separation of ownership and control exist. Agency control mechanisms are put in place to align the goals of managers (agents) with those of owners (principals). Agency costs represent the costs of all activities and operating systems designed to align the interests and actions of managers with the interests of owners.

The efficiency of firm assets, the manner at which the firm finances its activity either with debt or equity, the correct channeling of the premium collected by this insurance companies, the management of the companies policy as it relates to indemnifying the insured, and the ability of the insurance firms to maintain adequate liquidity within the firm to meet up with its daily activities as they arise in a business has the potential to both increase or decrease financial performance due to agency costs.

2.4.2 Resource Based Theory

The resourced based theory was propounded by Warnerfelt in the year 1984. This theory addresses performance differences between firms using asymmetries in knowledge. At the

corporate strategy level, theoretical interest in economies of scope and transaction costs focus on the role of corporate resources in determining the industrial and geographical boundaries of the firms' activities. At the business strategy level, explorations of the relationships between resources, competition and profitability include the analysis of competitive imitation, and the role of imperfect information in creating profitability differences between competing firms (Chen, 1996)

A firm's ability to earn a rate of profit in excess of its cost of capital depends upon the attractiveness of the industry in which it is located and its establishment of competitive advantage over rivals. Industrial organization economics emphasizes industry attractiveness as the primary basis for superior profitability, the implication being that strategic management is concerned primarily with seeking favorable industry environments, locating attractive segments and strategic groups within industries and moderating competitive pressures by influencing industry structure and competitors behavior. Thus, a resource based theory of the firm entails a knowledge based perspective.

A subsequent distinction made by Amit and Schoemaker (1993) is that encompassing construct previously called 'resources' can be divided into resources and capabilities. In this respect, resources are tradable and non-specific to the firm and are used to engage the resources with the firm (Makadok, 2001). This distinction has been widely adopted through the resource based view literatures (Cornner & Prahalad, 1996). Makdok (2001) emphasis the distinction between capabilities and resources by defining capabilities as a special type of resource, specifically an organizationally embedded non-transferable firm-specific resources whose purpose is to improve the productivity of the other resources possessed by the firm. Resources according to

Cornner & Prahalad, (1996) are stocks of available factors that are owned or controlled by the organization and capabilities are organizational capacity to deploy resources.

Of the theories discussed, the resource based theory has been found appropriate to anchor this study. The resource based theory posits that performance is a function of resources which may be tangible or intangible. In other words, insurance firms are resource-based firms which make use of both tangible and intangible resources to achieve their organizational objectives.

2.5 Summary

As observed from the review of literature, factors influencing the financial performance of insurance firms have been studied, particularly in developed and some developing economies and none in Nigeria to the best of my knowledge. Most of the studies carried out in Nigeria were centered on Banking sector and other sectors of the economy with the exclusion of insurance firms in Nigeria. Prior researches similar to this study were examined in this chapter. More so, the concepts of firm specific attributes and financial performance of listed insurance firms were discussed.

There is no universal theory on the firm characteristics. This studies reviewed several useful conditional theories that attempt to approach the determination of financial performance such as agency theory and resource base theory.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This study examined the impact of firm specific characteristics on the financial performance of listed insurance firms in Nigeria. Therefore, this chapter set out the steps and procedures used in analyzing the factors that affect the financial performance of listed insurance firms in Nigeria. In line with the objectives, the chapter focused on research design, method of data collection, population and sampling, techniques of data analysis to be employed in the research and measurement of variables.

3.2 Research Design

For the purpose of this study, correlational research design was adopted to address the research problem. A correlational research design is used to examine the statistical association or relationship between two or more variables. Correlational research design is therefore considered as the most appropriate for this study because it allows for testing of relationships between or among variables and making of predictions regarding these relationships. This study involves measurement of six independent variables to one dependent variable as well as assessment of the relationship between or among those variables concerned.

3.3 Population and Sample of the Study

The population of the study consists of all thirty (30) insurance companies listed on the Nigeria Stock Exchange as at 31st December 2013. The use of listed insurance firms can be justified

based on availability and reliability of data. The non-listed insurance firms are excluded because of poor regulatory oversight as well as data reliability, availability and measurement issues.

This study focused on the investigation of main factors that drive the financial performance of listed insurance firms in Nigeria. Therefore, censoring sampling technique was adopted for the purpose of the study. Sample of twelve (12) listed insurance firms were selected from a total of thirty (30) insurance firms which represents 40% of the entire population. A filter was employed to select firms that are listed on the Nigeria Stock Exchange before the two recapitalization exercise that took place in 2003 and 2005 and are still listed as at 31st December, 2013. Consequently, eighteen (18) firms were eliminated leaving twelve (12) firms. The remaining 12 firms that met the criteria were used as the sample of the study. The population and sample of the study are show below:

Table 3.1 Population of the study

Listed Insurance Firms	Year listed on NSE
Africa Alliance Insurance Plc	2009
Aiico Insurance Plc	1990
Confidence Insurance Plc	1999
Consolidated Hallmark Insurance Plc	2008
Continental Re-insurance Plc	2007
Cornerstone Insurance Plc	1997
Custodian and Allied Insurance Plc	2007
Equity Assurance	2007
Gold Line Insurance Plc	2008
Great Nigeria Insurance Plc	2005
Guaranty Trust Assurance	2009
Guinea Insurance Plc	1990
Intercontinental Wapic Insurance Plc	1990
International Energy Insurance Plc	2007
Investment and allied Assurance Plc	2008
Lasaco Assurance Plc	1991
Law Union and Rock	1990

Linkage Assurance Plc	2003
Mutual Benefit Assurance Plc	2002
N.E.M Insurance Plc	1990
Niger Insurance Plc	1993
Oasis Insurance Plc	2007
Standard Alliance Plc	2005
Regency Alliance Plc	2008
Sovereign Trust Insurance Plc	2006
Staco Insurance Plc	2007
Prestige Assurance Plc	1990
Linkage Assurance Plc	2005
Unitykapital Insurance Plc	2009
Universal Insurance Plc	2008

Table 3.2 Sample of the study

Listed Insurance Firms	Year listed on NSE
Aiico Insurance Plc	1990
Confidence Insurance Plc	1999
Cornerstone Insurance Plc	1997
Guinea Insurance Plc	1990
Intercontinental Wapic Insurance Plc	1990
Lasaco Assurance Plc	1991
Law Union and Rock	1990
Unic Insurance Plc	1990
Mutual Benefit Assurance plc	2002
N.E.M Insurance Plc	1990
Niger Insurance Plc	1993
Prestige Assurance Plc	1990

3.4 Sources and Method of Data Collection

To comply with the stated research objectives, the study employed panel data mainly from secondary sources which are quantitative in nature. The data were obtained from the annual reports of individual insurance companies submitted to Nigerian Stock Exchange. Therefore, the data needed was extracted from the audited financial reports of the selected firms within the period of the study.

The use of secondary data for this study may be justified in view of the fact that most studies on firm level characteristics (Kozak, 2011; Chen & Wong, 2004; Swiss Re, 2008; Green & Segal, 2004; Wright, 1992; Li, 2007; Agiobenebo & Ezirim, 2002) all used secondary data.

3.5 Techniques of Data Analysis

The technique of data analysis which the study employed is multiple regression analysis. The study adopted these techniques to ascertain the impact of firm specific characteristics (age, firm size, premium growth, loss ratio, liquidity, and leverage) on the performance of listed insurance firms in Nigeria which is proxied as Return on Asset (ROA). The data was analyzed using STATA 10 and the outcome was used to test the hypotheses of the study after conducting necessary test. In view of this, panel data regression analysis was adopted for the study. A panel data contains cross-sectional unit (firms) over a same time period (Wooldridge, 2009). This current study adopts the econometric style of Kozak (2011), Buyinza et al (2010), Ahmed et al (2011), Malik (2011) and Abate (2012). Various robustness tests were carried out to improve the validity of the results.

3.6 Variable Measurement:

The measurement of both independent and dependent variables are provided in Table 3.3. There are various ways to measure financial performance as shown in previous studies. In this study, net profit after tax to total assets (ROA) was adopted to measure financial performance of listed insurance firms in Nigeria. This is because ROA is the key proxy for insurance companies' profitability instead of the alternative Return on Equity (ROE), because an analysis of ROE disregards financial leverage and the risks associated with it as a measure of profitability in insurance

companies. This was confirmed by Ahmed et al (2011) and Al-Shimi (2008). The performance is characterized by net profit after tax divided by total assets of the insurance companies.

TABLE 3.3 Variable Measurement

Variable measurement	Proxies/definition	Expected Sign
Performance(ROA)	This is represented by net profit and it is calculated as net income after tax divided by total asset (Malik, 2011).	
Age (AG)	Age of insurance firm is measure by natural logarithm of year of incorporation (Ahmed <i>et al</i> ,2011).	+
Firm size (FSZE)	Size is measured as natural log of total assets of the company (Abate, 2012).	+
Premium growth (PG)	Premium growth is the percentage increase in gross written premium. The equation is given below: $PG = \{GW(t) - GW(t-1)\} / GW(t-1)$ (Daniel & Tilahan, 2012)	+
Loss ratio (LR)	This variable is measured as the ratio of incurred claims to earned premiums. It is measures as: LR = net claims incurred/net earned premium (Daniel & Tilahan, 2012).	-
Liquidity (LIQ)	Liquidity of insurance firm is measured as the ratio of current assets to current liabilities (Ahmed <i>et al</i> , 2011).	+
Leverage (LEV)	The leverage is taken as total debts divided by total assets of insurance firm (Sumaira & Amjad, 2013).	-

3.7 Model Specification

Financial performance (FP) of insurance companies is estimated using Return on Asset (ROA) as its proxy. This is expressed as follows:

$FP=(ROA)$

Financial performance proxied by ROA is a function of six explanatory variables, namely: age (AG), firm size (FSZE), premium growth (PG), loss ratio (LR), liquidity (LIQ) and leverage (LEV).

Therefore

$ROA = f (AG, FSZE, PG, LR, LIQ, LEV)..... (1).$

The Generalized Least Square (GLS) regression model was used to estimate the impact and the equation is given below:

$ROA_{it} = \beta_0 + \beta_1 AG_{it} + \beta_2 FSZE_{it} + \beta_3 PG_{it} + \beta_4 LR_{it} + \beta_5 LIQ_{it} + \beta_6 LEV_{it} + e_{it}.....(2)$

Where:

$\beta_0, \beta_1, \beta_2, \beta_3.....\beta_7$ are parameters to be estimated with a priori expectation.

ROA = Return on asset

AGE = Age

FSZE = Firm size

PG = Premium growth

LR = Loss ratio

LiQ =Liquidity

LEV = Leverage

β_0 = Constant

E = Error term.

3.8 Summary of the Chapter

In this chapter, outlines of the research design to be adopted for this study has been presented. Population and sample size of the study, the sources and method of data collection were presented. Discussions on the variables used in the study and the method of data analysis were also made. Finally, the chapter provided justification for the choice of sampling method and techniques to be employed for data analysis.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1 Introduction

This chapter presents the results from the analysis of data and its interpretation. The chapter is divided into four sections. The first section deals with the preliminary analysis of the sample using descriptive statistics. The second section presents correlation analysis between the explained and explanatory variables. This is followed by testing the hypotheses of the study as well as discussion of findings and policy implications from the findings. The last section ends with a discussion of the various robustness tests conducted in order to improve the validity of the results.

4.2 Descriptive Statistics

The summary statistics of the explained and the explanatory variables are presented in Table 4.1 where minimum, maximum, mean, standard deviation, and skewness of the data for the variables in the study are described.

Table 4.1 summary of Descriptive Statistics

<i>Variables</i>	<i>Minimum</i>	<i>Maxim</i>	<i>Mean</i>	<i>Std dev</i>	<i>Skewness</i>	<i>N</i>
<i>ROA</i>	<i>0.11</i>	<i>15.17</i>	<i>4.5730</i>	<i>2.5067</i>	<i>1.2432</i>	<i>96</i>
<i>AGE</i>	<i>1.80</i>	<i>3.91</i>	<i>3.0656</i>	<i>0.5417</i>	<i>0.1185</i>	<i>96</i>
<i>FSZE</i>	<i>13.23</i>	<i>17.37</i>	<i>15.7596</i>	<i>0.8246</i>	<i>-0.7179</i>	<i>96</i>
<i>PG</i>	<i>-1.00</i>	<i>4.01</i>	<i>0.3643</i>	<i>0.7075</i>	<i>2.8651</i>	<i>96</i>
<i>LR</i>	<i>0.08</i>	<i>0.91</i>	<i>0.3932</i>	<i>0.1862</i>	<i>0.8517</i>	<i>96</i>
<i>LIQ</i>	<i>0.15</i>	<i>2.58</i>	<i>4.3909</i>	<i>5.0882</i>	<i>2.3437</i>	<i>96</i>
<i>LEV</i>	<i>0.11</i>	<i>1.62</i>	<i>0.3274</i>	<i>0.2291</i>	<i>2.5202</i>	<i>96</i>

SOURCE: Descriptive Statistics Result using STATA 10

The table 4.1 shows the detail account of the descriptive statistics for the explained and explanatory variables respectively.

The mean values of all the variables as shown in the table ranges from minimum of 0.3274 for leverage to a maximum of 15.7596 for firm size. The average financial performance as proxied by ROA for listed insurance firms during the study period is about 4.5730 with standard deviation of 2.5067. This implies that there exists a significant variation among the values of profitability across the listed insurance firms in Nigeria during the period. In respect of age of the firm, its average value shows 3.0656 with a standard deviation of 0.54. This implies that there is moderate variation among the values of age due to its standard deviation.

The mean value of size is 15.7596 with a standard deviation of 0.8246. This shows that there is large variation across the sample of listed insurance companies in Nigeria. Hence, the highly deviated size may have significant impact on the financial performance of listed insurance firms in Nigeria as this will be reflected in our regression result. The premium growth of insurance firms in Nigeria shows an average value of 0.3643 with standard deviation of 0.7075. This implies that the premium growth of the firms deviates from its mean value up to 0.71. The average value of loss ratio (LR) has become 0.3932 with a standard deviation of 0.1862. Therefore, there exists a moderate variation among the value of loss ratio across the sample insurance companies included in this study. The analysis of liquidity ratio shows a mean value of 4.3909 with the value of standard deviation of 5.0882. This implies that liquidity ratio through the analysis of its standard deviation revealed that liquidity of the firm deviates from its mean value up to 5.08. Finally, the mean value of leverage is 0.3274. This implies that there were moderate differences among the values of leverage as measures by total liabilities to total assets across the sample of listed insurance firms under the study and this is confirmed by its standard deviation of 0.2291. Therefore, this study is conducted to determine the extent to which the variation in factors affect the financial performance of listed insurance firms in Nigeria.

Finally, the skewness result revealed that data obtained for all the variables including dependent and independent are not abnormal, that is, they are normally distributed. Hence, the study is considered valid if obtained from the data quality. Therefore, the result from the normality test signifies the normality of data and further substantiates the validity of the regression results.

4.3 Correlation Matrix

The correlation coefficient represents the linear association or relationship between two variables (explained and explanatory) and also between the explanatory variables themselves. The most widely used type of correlation coefficient is Pearson(r) which is also called linear or product moment correlation. The correlation values are derived from the Pearson correlation of two tailed significance. The table below shows correlation matrix with the top values displaying the Pearson correlation coefficient between all pairs of variables and the asterisk beside the Pearson correlation coefficient showing the two tailed significance of these coefficient. Observing the pattern of the correlation between the explained and explanatory variables, it is however deduced that four of the variables correlate perfectly while two of them are not highly correlated. On the other hand, the relationships between most of the explanatory variables are less minimal and could be neglected as there is no problem of singularity of data (that is, there is no interdependency among the independent variables).

Table 4.2 shows the correlation between the dependent variable which is Return on assets(ROA) and independent variables which are age of the firms(AGE), the firm size(FSZE), premium growth(PG), loss ratio(LR), liquidity(LIQ) and leverage(LEV).

Table 4.2 Correlation Matrix Table

<i>VAR</i>	<i>ROA</i>	<i>AGE</i>	<i>FSZE</i>	<i>PG</i>	<i>LR</i>	<i>LIQ</i>	<i>LEV</i>
<i>ROA</i>	1						
<i>AGE</i>	-0.185*** (0.0710)	1					
<i>FSZE</i>	-0.4960* (0.0000)	0.2614** (0.0101)	1				
<i>PG</i>	0.0037 (0.9717)	0.1794*** (0.0803)	0.1029 (0.3183)	1			
<i>LR</i>	-0.3742* (0.0266)	0.3926* (0.0001)	0.2464** (0.0155)	0.0439 (0.6709)	1		
<i>LIQ</i>	0.2264** (0.0266)	-0.1581 (0.1240)	-0.2128** (0.0374)	-0.0089 (0.9313)	0.1738*** (0.0904)	1	
<i>LEV</i>	-0.1354 (0.1924)	-0.3741* (0.0002)	-0.0845 (0.4130)	-0.0626 (0.5445)	-0.2170** (0.0337)	-0.0615 (0.5517)	1

SOURCE: Correlation matrix result using STATA 10

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

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

***. Correlation is significant at 0.10 level (2-tailed)

The significance level of this result is indicated in the table. The highest negative percentages are size as measured by natural log of total assets and loss ratio measured as ratio of net claims incurred to net premium earned. The coefficient of correlations between firm size and financial performance of listed insurance firms is -0.4860. This implies that firm size is negatively related to financial performance up to the tune of 48.60%. The result therefore revealed an inverse relationship between firm size and return on asset.

The analysis of loss ratio which is measured by ratio of net claims incurred to net premium earned revealed a negative and significant relationship with return on asset. The relationship is significant at 1% level of significance. This result is an indication that firms with high underwriting of risk will report lower ROA. In addition, as loss ratio increases, financial performance of insurance firm decreases

Analysis of age shows that the variable is negatively and significantly correlated with financial performance of listed insurance firms in Nigeria. This implies that the older the firm, the lower the financial performance. The table also shows that financial performance (ROA) is 22.64% correlated with liquidity. This implies that the more liquid the firms are, the more their financial performance. Lastly, the premium growth of insurance firms and leverage are correlated negatively with the financial performance but they are not statistically significant at all levels of significance as shown in Table 4.2. Therefore, age of the firm, firm size, leverage, and liquidity are strongly correlated with dependent variable (ROA).

4.4 Heteroscedasticity Test

One of the important assumptions of classical linear regression model is that the disturbances appearing in the population regression are homoscedastic. This means that the variance of the error term is consistent. If the errors do not have a constant variance (not homoscedastic), they are said to be heteroscedastic (Brook, 2008) as cited in the work of Ayele (2012). A large chi-square indicates presence of heteroscedasticity. In the result obtained from the heteroscedasticity test conducted in this work, the chi-square value was large and p-value is small (SEE APPENDIX) indicating heteroscedasticity was present and this shows violation of assumption number four of classical linear regression model which states that there must be constant variance, that is the disturbances appearing in the population regression function are homoscedastic. Therefore, as a result of the presence of heteroscedasticity, the researcher decided to conduct fixed and random effect model which will take care of the individual differences within units. This will ensure that conclusions reached or inferences made are not misleading

4.5 Presentation and Discussion of Regression Result

This section deals with the regression result of the explained variable proxied by ROA and the explanatory variables (AGE, FSZE, PG, LR, LIQ, and PG) of the study. The results generated from fixed and random effect model were presented first before Hausman specification test so as to decide the appropriate model from two possible options. The results are presented below in Table 4.3

Table 4.3 Fixed Effects Model

<i>Var</i>	<i>Co-eff</i>	<i>Std Error</i>	<i>T-value</i>	<i>P-value</i>
<i>C</i>	34.8574	6.4063	5.44	0.000
<i>AGE</i>	1.0602	1.4748	0.72	0.474
<i>FSZE</i>	-1.9524	0.4310	-4.53	0.000
<i>PG</i>	0.1424	0.3489	0.41	0.684
<i>LR</i>	-6.0049	1.6214	-3.70	0.000
<i>LIQ</i>	0.1600	0.0601	2.67	0.009
<i>LEV</i>	-3.7162	1.2505	-2.91	0.004
R-Sq:				
<i>Within</i>		0.3228		
<i>Between</i>		0.6124		
<i>Overall</i>		0.3709		

SOURCE: RESULT OUTPUT FROM STATA 10

Table 4.3 shows the results of fixed effects model. Here, firm size, loss ratio, liquidity ratio and leverage are significant while age and premium growth of the firm are not significant. Out of all the variables, four variables (FSZE, LR, LIQ, and LEV) are all significant at 1% level of significance. The R² within, below and overall are 32.28%, 61.24% and 37.09% respectively. Within R² means that independent variables explain 32.28% variations in the profitability in this panel from year to year. Between R² indicates that independent variables explain the 61.24% variations in profitability from firm (cross-sectional unit) to other firm. While overall R² shows that independent variables explains 37.09% variations in the whole panel.

Table 4.4 Random Effects Model

<i>Var</i>	<i>Co-eff</i>	<i>Std Error</i>	<i>Z-value</i>	<i>P-value</i>
<i>C</i>	29.0301	4.9314	5.89	0.000
<i>AGE</i>	0.0612	0.6334	0.10	0.923
<i>FSZE</i>	-1.4115	0.3108	-4.54	0.000
<i>PG</i>	0.1845	0.3172	0.58	0.561
<i>LR</i>	-5.1990	1.3954	-3.73	0.000
<i>LIQ</i>	0.1128	0.0493	2.29	0.022
<i>LEV</i>	-2.9809	1.0722	-2.78	0.005
R-Sq:				
<i>Within</i>		0.3147		
<i>Between</i>		0.7063		
<i>Overall</i>		0.4029		
<i>Wald Chi</i>		48.55		
<i>Wald-sig</i>		(0.000)		

SOURCE: RESULT OUTPUT FROM STATA 10

A result of random effect model is provided in table 4.4 Variables such as size, loss ratio, liquidity and leverage are significant in this model while age and premium growth (PG) are not significant. Firm size (FSZE), loss ratio (LR) and leverage (LEV) are significant at 1% while liquidity (LIQ) is significant at 5% level of significance. On the other hand, age of the firm and premium growth (PG) is not significant. The within R^2 of this model is 31.47%, between R^2 is 70.63% while the overall R^2 of the panel is 40.29%. This model is also significant as indicated by Wald χ^2 of 48.55 at 1% level of significance. Within R^2 and overall R^2 of random effects model are higher as compared to fixed effects model. Alternatively, between R^2 of fixed effects model is greater than that of the random effects model.

The results of both the fixed and random effect models are significant at 1% and 5% level of significance. As a result, it is hard to choose which model is appropriate. To handle this problem, the study conducted Hausman's specification test in order to decide the appropriate one from the two possible options. The result of this test is provided in the Table 4.5

Table 4.5 Hausman Specification Test

<i>Var</i>	<i>Fixed</i>	<i>Random</i>	<i>Differences</i>
<i>AGE</i>	1.0602	0.0612	0.9990
<i>FSZE</i>	-1.9524	-1.4115	-0.5409
<i>PG</i>	0.1424	0.1845	-0.0421
<i>LR</i>	-6.0049	-5.1990	-0.8059
<i>LIQ</i>	0.1601	0.1128	0.0473
<i>LEV</i>	-3.7162	-2.9809	-0.7353
<i>Chi²</i>	3.70		
<i>Prob</i>	(0.72)		

SOURCE: OUTPUT FROM STATA 10

The outcome of Table 4.5 above suggests that the most appropriate model is Random Effect model. This is because the χ^2 value of this test is 3.70 which is not significant. Therefore, Hausman specification test proved that random effects model is the more appropriate for this study. The random effect has four significant variables which include firm size (FSZE), loss ratio (LR), liquidity (LIQ) and leverage (LEV) while age of the firm (AGE) and premium growth (PG) are insignificant. Therefore, our interpretation is based on random effect regression model.

The summary of the regression result obtained from random effects model of the study ($ROA_{it} = \beta_0 + \beta_1 AGE_{it} + \beta_2 FSZE_{it} + \beta_3 PG_{it} + \beta_4 LR_{it} + \beta_5 LIQ_{it} + \beta_6 LEV_{it} + e_{it}$) were analyzed and discussed.

Age and Financial Performance

The age of insurance firms measured by the natural logarithm of difference between observation year and establishment year shows a z-value of 0.10 and a coefficient of 0.0612 with p-value of 0.923 which is statistically insignificant. This shows that age of insurance companies has a positive coefficient but insignificant in explaining and predicting the financial performance of listed insurance firms in Nigeria within the study period. The relationship which is in line with

the expected sign implies that older firms are more experienced and are not prone to the liabilities of newness, and can therefore enjoy superior performance. Older firms may also benefit from reputation effects, which allow them to earn a higher margin on sales. The positive insignificant effect may be as result of arguments put forward by Liagoras and Skandal (2008) that older firms are prone to inertia and bureaucratic ossification that goes along with age, they might have developed routines which are out of touch with in market condition. Therefore, it can be concluded that the age of insurance firms still explains the variation in profitability of insurance companies positively. Our finding is in line with the findings of Browne and Hoyt (2001), Yuqili (2007) Swiss Re(2008), Abate (2012), Almajali and Yahya (2012), Yuvaraj and Abate (2013). Based on the findings of this study, age is not considered as a powerful explanatory variable in determining the financial performance of insurance companies in Nigeria.

Firm size and Financial Performance

The random effects regression result revealed that firm size as shown in table 4.4 has a z-value of -4.54 and a coefficient value of -1.4115 with a significant value of 0.000. This signifies that firm size has negative and strong influence on financial performance of listed insurance firms in Nigeria, that is, the greater the size of a firm, the lower the reported ROA. The negative effect of firm size is inconsistent with our a priori expectation. This implies that for every one unit increase in firm size, the ROA will reduce by 1.41. This may be as a result of diseconomies of scale suffered by insurance firms due to uncontrolled increased size. This is backed by position of Jensen and Murphy (1990) which states that as an organization grows, it often becomes more difficult for owners to efficiently and effectively monitor and control aberrant behavior by the managers. In view of this, managers have incentive to pursue corporate size related objectives

such as increasing market share rather than maximizing shareholders wealth. Majumdar (1997) opined that as firms becomes larger; they might suffer from inefficiencies leading to inferior financial performance. The findings contradict the resource based theory which articulates a positive and significant relationship between firm size and financial performance of a firm. The finding is in line with the findings of Adams and Buckle (2000) but contradict that of Yuvaraj and Abate (2013), Daniel and Tilahun (2012), Abate (2012), Almajili and Yahya (2012) and Malik (2011).

Premium growth rate and Financial Performance

The results revealed that there is no significant relationship between premium growth and the financial performance of listed insurance firms in Nigeria. As shown in Table 4.4, the coefficient of premium growth is 0.1845 with a z-statistics of 0.58 and a p-value of 0.561. This signifies that the premium growth rate (PG) does not significantly influence the financial performance of listed insurance firms in Nigeria. This implies that whether there is an increase or decrease in premium growth, the financial performance may not necessarily change either by increasing or decreasing ROA. This may be as a result of overwhelming focus of most insurance companies on various marketing activities to generate more premiums to the detriment of their investment activities. That is, if more resources, especially human and capital are directed towards the underwriting of more policies to grow premiums without a proportionate concentration of such resources on the management of assets and liabilities, their profitability will be affected despite an increase in the gross written premiums. Chen and Wong (2004) opined that being too obsessed with premium growth can lead to self destruction as other important objectives such as the effective selection of profitable portfolio to invest in might be neglected. Thus, it can be concluded that insurance companies are increasing their premiums and growing very rapidly but their growth does not

produce any outcome to the insurance companies. The finding is in line with those reported by Sumaira and Amjad (2013), Yuvaraj and Abate (2013) Abate (2012).

Loss ratio and financial performance

From Table 4.4, it is observed that z-value for loss ratio (LR) as measured by ratio of net claimed incurred to net premium earned is -3.73 with a coefficient value of -5.1990 and a significant p-value of 0.000 which is significant at 1% level of significance. Therefore, loss ratio has negatively and significantly impacted financial performance of listed insurance firms in Nigeria. This implies that loss ratio has inverse relationship with and thus exerts negative effect on the financial performance, that is, the higher the underwriting risk, the lower the reported financial performance proxied by ROA. The negative effect of loss ratio is consistent with a priori expectation implying that every one point increase in underwriting risk causes financial performance to decline by 5.20. This finding indicates that insurers in Nigeria have been incurring underwriting losses which detract their financial performance. This may be as a result of high underwriting loss which is due to overtrading, high claims payment and high managerial expenses. The finding corroborates with those of Malik (2011), Ahmed *et al* (2011) but contradict the findings of Charimathi (2012), Adams and Buckle (2000).

Liquidity and Financial Performance

Liquidity ratio as measured by the ratio of current assets to current liabilities shows a z-value of 2.29 with a beta value of 0.1128 and a significant p-value of 0.022. This implies that liquidity ratio is positively and strongly influencing the financial performance of listed insurance firms in Nigeria within the study period. This means that the higher the liquidity position of the firm, the more the reported financial performance as proxied by ROA. The positive effect of liquidity is

consistent with our a priori expectation. This implies that for every one point increase in liquidity ratio, the financial performance of listed insurance firms in Nigeria will also increase by 0.11 point. Therefore, it can be concluded that the more liquid firms are, the more the return on assets. The positive effect of liquidity may be as a result of adequate liquidity maintained by the insurance firms to meet their daily demand as they arise because adequate liquidity helps the insurance firms to minimize liquidity risk and financial crises. The result is congruent with the findings of Almajali et al (2012), Brown et al (2001) and Carson and Hoyt (1995). They all suggested that liquidity is positively and strongly related to financial performance. The study contradicts the findings of Abate (2012), Yuvaraj and Abate (2013), Ahmed *et al* (2011), Bilal and Tuful (2013) and Daniel and Tilahun (2013).

Leverage and Financial Performance

The table 4.4 shows that z-value for leverage is -2.82 and coefficient of -2.8579 with a p-value of 0.005 which is therefore significant at 1% level of significance. This signifies that leverage is negatively and significantly influencing the financial performance of listed insurance firms in Nigeria. This implies that the higher the level of leverage, the lower the financial performance of listed insurance firm proxied by ROA. The negative effect of the value of leverage is consistent with our a priori expectation, implying that every one point increase in value of leverage causes financial performance to decline by 2.98. Literature on capital structure confirmed that the firms' value will increase up to optimum point as leverage increase and then declines if leverage is further increased beyond the optimum level. It can be concluded that insurers with high leverage (using leverage beyond a level) will have adverse impact on their profitability. This finding is in harmony with the findings of Browne and Hoyt (2001), Chen and Wong (2004), Malik (2011), Kozak (2011), Ahmed et al (2011), Abate (2012) Sumaira and Amjad (2013), Yuvaraj and

Abate (2013) but contradict the findings of Carson and Hoyt (1995) and Daniel and Tilahun (2012).

Cumulatively, the $R^2(0.4029)$ which is the multiple coefficient of determination gives the percentage or proportion of total variation in the dependent variables measured by ROA explained by the independent variables jointly. Hence, the result of R^2 signifies that 40.29% of total variation in the profitability measured by ROA is caused by age of insurance companies, firm size, premium growth, loss ratio, liquidity and leverage. This indicates that the model is fit and the explanatory variables are properly selected, combined and used.

The F-statistics or Wald chi-square is used interchangeably. Therefore, Wald χ^2 of 48.55 which is significant at one percent (1%) indicates that financial performance and firm specific characteristics model is fit. This means that there is 99.9% probability that the relationship among the variables is not due to mere chance. Hence, the function for our regression equation is given below:

$$ROA_{it}=28.1685+0.0081AGE_{it}+(1.3529)FSZE_{it}+0.1385PG_{it}+(4.9821)LR_{it}+0.1210LIQ_{it}+(2.8579)LEV_{it}+e_{it}.$$

4.6 Hypothesis Testing

This section presents the result generated from the random regression analysis in order to test the hypotheses of the study stated in chapter one. The regression result used to test the hypotheses of the study is presented in table 4.5 below

Table 4.6 Variable Coefficient

Variables	t-values	P-values
<i>Age</i>	0.10	0.923
<i>Firm size</i>	-4.54	0.000
<i>Premium growth</i>	0.58	0.561
<i>Loss ratio</i>	-3.73	0.000
<i>Liquidity</i>	2.29	0.022
<i>Leverage</i>	-2.78	0.005

SOURCES: result output from STATA 10

Table 4.6 shows that three of our explanatory variables are positive, while the remaining three of them are negative. All the independent variables are significant at 1% and 5% except for age and premium growth which are statistically insignificant. This indicates that all the firm specific attributes used in the study explained financial performance of listed insurance firms in Nigeria within the study period except for age and premium growth of insurance companies. This shows the fitness of the study model and correct selection of the explanatory variables.

The results for each hypothesis stated in chapter one is presented below:

Hypothesis 1

H₀₁: age of the firm has no significant impact on the financial performance of listed insurance firms in Nigeria.

Age of the firm which is measured by natural logarithm of the difference between observation and establishment year of the companies is found to be statistically insignificant which means that the variable is not significantly associated with financial performance of listed insurance firms in Nigeria. Therefore, age of insurance firm has insignificant influence on the financial performance measured by ROA.

The age of the firm from the above result is statistically insignificant in influencing the financial performance measured by ROA. This provided enough evidence of failing to reject null

hypothesis one of the study which states that age of insurance firms has no significant impact on the financial performance of listed insurance firms in Nigeria.

Hypothesis 2

H₀₂: Firm size has no significant impact on financial performance of listed insurance firms in Nigeria.

Firm size which measured by natural logarithm of total assets is found to be negatively significant at 1% level. This means that the larger the firm, the lesser the reported ROA. This implies that the variable is associated with financial performance of listed insurance firms in Nigeria. Therefore, firm size has significantly influenced the financial performance proxied by ROA.

With respect to firm size, the variable is statistically significant in influencing the ROA of listed insurance firms as evident in the above result. This provided grounds for rejecting null hypothesis two which states that firm size has no significant impact on the financial performance of listed insurance firms in Nigeria.

Hypothesis 3

H₀₃: Premium growth rate has no significant impact on the financial performance of listed insurance firms in Nigeria

Premium growth rate measured by the percentage increase in gross written premium is found to be statistically insignificant which means that premium growth is not significantly associated with the financial performance of listed insurance firms in Nigeria.

As evident in the result above, premium growth is statistically insignificant in influencing the financial performance of listed insurance firms in Nigeria. This provides an evidence of failing to reject null hypothesis three of the study which states that premium growth rate has no significant impact on the financial performance of listed insurance firms in Nigeria.

Hypothesis 4

H₀₄: Loss ratio has no significant impact on the financial performance of listed insurance firms in Nigeria.

Loss ratio measured the ratio of incurred claims to earned premiums which is found to be significantly and negatively associated with the financial performance of listed insurance firms in Nigeria at 1% level of significance. This implies that the higher the underwriting risk by the insurance firms, the lower the reported ROA of listed insurance firms in Nigeria. Therefore, loss ratio has significantly affected the financial performance of listed insurance firms in Nigeria.

The above result proved that loss ratio is statistically significant in contributing to financial performance measured by ROA. This provides enough evidence for rejecting null hypothesis four of the study. Thus, **H₀₄** is rejected.

Hypothesis 5

H₀₅: Liquidity has no significant impact on the financial performance of listed insurance firms in Nigeria.

Liquidity measured by the ratio of current assets to current liabilities is found to be positively significant at 1% level. This means that liquidity is associated with financial performance of

listed insurance firms in Nigeria. Therefore, liquidity has significantly affected the financial performance of listed insurance firms in Nigeria.

From the result above, it can be deduced that liquidity is statistically significant in influencing financial performance of listed insurance firms in Nigeria. This provided evidence for rejecting null hypothesis five of the study. Thus, H_{05} is rejected.

Hypothesis 6

H_{06} ; Leverage has no significant impact on the financial performance of listed insurance firms.

Leverage is taken as total liabilities divided by the total assets of insurance firms and it is found to be negatively significant at 1% level. This means that the leverage of the firm is associated with the financial performance of listed insurance firms in Nigeria. Therefore, leverage has significantly affected the financial performance of listed insurance firms in Nigeria.

As seen in the above result, leverage is statistically significant in influencing the financial performance measured by ROA. As a result, null hypothesis six is rejected.

4.7 Robustness tests

This section presented the result of robustness test conducted to improve the validity of the statistical inferences for the study. The problem of multicollinearity is discussed based on the result generated for the purpose of the study. Multicollinearity is investigated using tolerance and variance inflation factor (VIF) value. An insignificant tolerance value indicates that variable under consideration is almost a perfect linear combination of the explanatory variable already in the equation and that it should not be included in the regression equation. The tolerance value

and VIF are employed in this study to test for multicollinearity of the explanatory variable. The result of multicollinearity test is presented in Table 4.7

Table 4.7 Collinearity Test

<i>Variables</i>	<i>VIF</i>	<i>TV (1/VIF)</i>
<i>Age</i>	1.48	0.674187
<i>Firm size</i>	1.17	0.853382
<i>Premium growth</i>	1.04	0.960962
<i>Loss</i>	1.19	0.842992
<i>Liquidity</i>	1.18	0.847572
<i>Leverage</i>	1.34	0.746996

SOURCE: Result output from STATA 10

The Variance Inflation Factors (VIF) and Tolerance Values (TV) for all the variables as shown in Table 4.7 are found to be consistently smaller than 10 and 1.00 respectively, indicating absence of multicollinearity. This shows the appropriateness of the model of the study with the six explanatory variables. In addition, the absence of multicollinearity between the independent variables were further substantiated by the tolerance values which were consistently smaller than 1.

4.8 Implication of Findings

Findings of this study have several implications for investors and insurance firms. Viewing evidence about what drives insurance firm's profitability will help business understand which factors are critical to track and analyze in order to attain operational success. It is paramount to note that, if insurance firms know the factors that can boost performance, it will culminate into creating increased competition in the market place. Investors can use the knowledge derived from the findings of this study to take care of their investment. The outcomes of this study contribute towards a better understanding of the firm specific characteristics that affect financial performance of listed insurance firms in Nigeria.

The analysis revealed that firm size is negatively and significantly influencing the financial performance of listed insurance firms in Nigeria. This implies that the larger the firm, the lower the reported financial performance. This result has implication on the firm owners because as organization grows, most times, it becomes difficult for owners to monitor and control aberrant behavior by managers. The managers pursue size related objective rather than maximizing shareholders wealth. Not only that, as firms become larger, they might suffer from inefficiencies leading to poor financial performance.

Furthermore, the finding showed that loss ratio is negatively and significantly influencing the financial performance of listed insurance firms in Nigeria. This implies that the loss ratio which is measured by underwriting risk reduces the financial performance of the firms. This finding provides support in favor of the argument that high annual insurance losses will tend to increase the level of corporate management expenses ex-post (claims investigation and loss adjustment) that could further exacerbate a decline in reported operation performance. More so, excessive risk taking could adversely affect the annual performance of insurance companies. For example, unanticipated market forces such as enhanced competition and a sharp fall in share prices could limit management's ability to increase annual premiums and investment income to compensate for losses arising as a result of poorly priced risk.

The findings also revealed that liquidity is positively and significantly influencing the financial performance of listed insurance firms in Nigeria. The implication of this is that higher liquidity would allow a firm to deal with unexpected contingencies and to cope with its obligation during the period of low earning. This can also be advantageous to the management as they can make

use of their liquid assets to finance their activities and investments when external finances are not available or too costly.

Finally leverage is negatively and significantly related with the performance of the listed insurance firms in Nigeria. This predicts that the performances of highly levered insurance companies in Nigeria are going to be less profitable and implies equity financing is better than debt financing. The leverage ratio level of the insurance companies affects their profitability negatively. From the result, it implies that highly profitable insurance companies most likely rely more on internally generated funds and equity capital than debt capital as the source of financing.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

This study investigates firm specific characteristics affecting the financial performance of listed insurance companies in Nigeria for the period 2006-2013. The study used secondary data obtained from the annual reports and accounts of 12 of the insurance companies. Multiple regression was used with the aim of explaining and predicting empirically the relationship between firm specific characteristics and financial performance of the companies. The model used for the purpose of the study estimates the association and impact of six explanatory variables on one explained variable through the use of generalized least square techniques.

Panel data techniques (fixed effects and random effects models) were utilized to investigate the impact of firm specific characteristics on financial performance of listed insurance firms in Nigeria. The Hausman specification test showed that random effects model is the more appropriate model in this study. The results of random effects model reveal that firm size, loss ratio, liquidity and leverage are significant determinants of firm performance while premium growth and age of the firms are insignificant. Specifically, while firm size, loss ratio and leverage have significant negative relationships with performance, liquidity has significant positive relationship. However, age and premium growth are not significant. Thus, firm specific characteristics used in this study proved to be determinants of financial performance of listed insurance firms in Nigeria.

5.2 Conclusions

After careful review of the results and discussion, as well as relevant literatures, the study concludes that:

There is a positive and insignificant impact of age of insurance companies on financial performance of insurance firms proxied by ROA. This means that the age of insurance companies is positively and insignificantly in explaining the financial performance of listed insurance firms in Nigeria within the period under review. Although the result showed no statistical significance between these variables, it can be concluded that the age of insurance firms still explains the variation in profitability of insurance companies positively.

There is negative and significant impact of firm size on the financial performance of insurance companies. This implies that the larger the firm, the lower the financial performance of listed insurance firms in Nigeria.

Premium growth has positive and insignificant impact on the financial performance of listed insurance firms in Nigeria. This implies that the premium growth (PG) do not significantly influence the financial performance of listed insurance firms in Nigeria. Thus, it can be concluded that insurance companies are increasing their premiums and growing very rapidly but their growth does not produce any outcome to the insurance companies.

Loss ratio has a negative and significant impact on the financial performance of listed insurance firms in Nigeria. This means that the higher the underwriting risks, the lower the financial performance of listed insurance firms in Nigeria.

There is a positive and significant impact of liquidity on financial performance of listed insurance firms in Nigeria. This implies that the more liquid the firms are, the better is their financial performance.

Finally, there is negative and significant impact of leverage on financial performance of listed insurance firms in Nigeria. This implies that the higher the level of leverage, the lower the financial performance of listed insurance firms.

5.3 Recommendations

In the light of the analysis and findings, the following suggestions are proffered

- (i) Insurance firms in Nigeria should not only rely on their reputation alone. They should devise new means of penetrating into the market by diversifying into new geographical market and developing a greater array of insurance product offering and services. Not only that, the investors should be aware of reputation effect as this can be misleading.
- (ii) The management of insurance companies as well as policy makers should be more inclined to finding ways to obtain the optimal utilization of their assets while making the best use of their resources during the process of delivering their service as this may go a long way in improving their performance.
- (iii) The insurance firms in Nigeria should not be much focused in increasing their growth in terms of premium while abandoning other alternatives (such as investment) that could improve their performance because being too preoccupied with premium

growth can lead to self-destruction as other important objectives (such as the effective selection of profitable portfolios to invest in) might be neglected.

- (iv) Insurance companies should have separate department with requisite personnel for their investment operations and underwriting activities and that the activities of these departments must be managed closely together in a complimentary manner. In particular, the underwriting/ actuary departments must insist on the validation of all policies in order to prevent price undercutting and overtrading by insurance marketing agents.
- (v) Insurance firms in Nigeria should maintain their liquidity profile and standard while diversifying their assets in a way to remain profitable and sustainable.
- (vi) The management of insurance firms should caution their decisions in respect to leverage. The financing decision should be more of equity than debt to avoid high leverage and low profitability through issuing more shares in the market and declining loans and debentures. Thus, the lower the leverage, the higher the performance. Therefore, insurance firms should rely more on internally generated funds and equity capital than debt capital as the source of financing.

5.4 Limitations of the study

The following are the limitations of this study:

This study focused on firm specific attributes that influence the financial performance of listed insurance firms in Nigeria. There are still other likely determinants which the study did not cover. These include, among others, the industry specific attributes and the macro-economic determinants such as Gross Domestic Product (GDP), industry size, interest rate and inflation.

The study used only return on assets as tool for measuring financial performance. Other measurement tools of financial performance such as return on equity, net profit margin and Tobin's Q need to be used as well.

5.5 Suggestions for further Research

This study has considered only six explanatory variables relating to financial performance of listed insurance firms in Nigeria. Future studies may consider more variables, both industry specific and macro-economic variables. Again, it is suggested that Return on Equity should be regressed on the explanatory variables used in this study to find their extent of relationship on financial performance.

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