EFFECT OF FIRM-SPECIFIC ATTRIBUTES ON FINANCE LEASE USE IN LISTED NON-FINANCIAL FIRMS IN NIGERIA

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A THESIS SUBMITTED TO THE SCHOOL OF POSTGRADUATE STUDIES, AHMADU BELLO UNIVERSITY, ZARIA IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER OF SCIENCE DEGREE (M.Sc.) IN ACCOUNTING AND FINANCE

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DECLARATION

I, **Aliya, Musa-Mubi** hereby declare that the work titled: 'EFFECT OF FIRM-SPECIFIC ATTRIBUTES ON FINANCE LEASE USE IN LISTED NON-FINANCIAL FIRMS IN NIGERIA' has been done by me, under the supervision of Dr. A. B. Dogarawa and Dr. M. D. Tahir of the Department of Accounting, Ahmadu Bello University Zaria. Information gathered from the literature has been duly acknowledged and a list of references provided. I affirm that no part of the dissertation has been presented elsewhere for the award of any degree. I assume responsibility for any errors or omissions therein.

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CERTIFICATION

This is to certify that the dissertation titled: 'EFFECT OF FIRM-SPECIFIC ATTRIBUTES ON FINANCE LEASE USE IN LISTED NON-FINANCIAL FIRMS IN NIGERIA' by Aliya, MUSA-MUBI (MSC/ADMIN/P13ADAC8342) meets the regulations governing the award of the degree of Masters of Science (M.Sc.) in Accounting and Finance in Ahmadu Bello University, Zaria and is approved for its contribution to knowledge and literary presentation.

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DEDICATION

I dedicate this work to my mother, Hajiya Zainab Muhammad and sister, Sakeena Musa-Mubi.

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ABSTRACT

Leasing as a means of financing investments in tangible assets has made a significant contribution to capital formation in the Nigerian economy but the industry as a whole, seeks growth in conformity with the levels obtainable in developed economies. In spite of theoretical expositions on capital structure extensively acknowledging the nature and use of finance leasing in corporate entities, in Nigeria, financing is largely biased towards Micro, Small and Medium scale Enterprises (MSMEs) giving cause for inference that leasing may not be predominant in the corporate sector inclusive of listed non-financial firms having access to institutions in the capital and money markets. The study sought to examine in those entities found to be leasing, what firm attributes influence their use given the limited number of empirical studies in Nigeria and the inconsistencies in findings of foreign researches. A sample of 14 listed non-financial firms on the Nigerian Stock Exchange over the period 2007-2015 was studied to determine the significance of profitability, growth opportunities, information asymmetry, financial distress, agency cost and leverage in accounting for finance leasing. Consideration was given to the possibility of past lease use influencing the present decision to lease, as well as the effect on reported values in the financial statements by the adoption of International Financial Reporting Standards (IFRS). Running a Bootstrap-based Fixed-effects regression, the study found leasing to be significantly and negatively influenced by leverage confirming the lease-debt substitutability proposition in the literature. It is recommended that leasing businesses become innovative in raising awareness and developing competitive leasing arrangements for the listed non-financial firms in Nigeria.

CHAPTERONE
INTRODUCTION

1.1 Background to the Study

Finance is an integral aspect of the strategic decision making process of corporate organisations. The drive towards the achievement of set objectives; principal of which includes maximisation of shareholders' wealth, influences choices as to source of long term funds and its efficient utilisation through investment in assets for productive activities. The selection of a particular form of long term finance or a mix of choices, constitute what is commonly referred to as the 'capital structure' of corporate entities (Pratheepkanth, 2011). Discourse and research on this conceptusually has at its fore, debt and equity studied as a whole; equity being finance sourced through investment inshares of a company. Debt in this regard,refers to interest based funds inclusive of those raised through the issue of debt securities on the capital market and the contracting of long or short term loans from the money market financial institutions such as banks.

A less discussed but important component of capital structure is finance lease which is a peculiar asset-based form of debt financing resulting in the acquisition of a physical non-current asset instead of liquid cash(Kraemer-Eis & Lang, 2012). Consequently, a representation of a lease liability as well as the corresponding leased asset is made on the statement of financial position of firms. Besides the use of equity (shareholders' investments), debt instruments or facilities and hire purchase agreements, leasing is another finance avenue resorted to in asset acquisition where substantial capital outlay is involved. As noted by Feldman (2002), an industry, for instance aviation, which employsexpensive hightechnologyequipments, rather than make an outright purchase from available resources or secure procurement through regular debt, can opt for lease.

Leasing is an arrangement whereby a party, lessee obtains the right to use an asset for a defined period of time in exchange for a consideration of regular lease payments to another, a lessor (Yan, 2006). It makes for an attractive source of finance due to its characteristic advantages. According to Adebisi (2003) as cited in Oko and Essien (2014), there are opportunities for cash conservation as the terms of payment for leased assets can be designed to match the cash flow patterns of lessee entities. Akinsulire (2011) stated the ease with which leasing agreements can be arranged especially for companies with liquidity problems, poor collateral availability and payment track record which constitutethe basis for credit worthiness assessments when other forms of finance are being sought such as loans. Subsequent to this ease is the flexibility with which lease terms, periodic payments and options to purchase could be adjusted in contrast to conventional debt financing (Malik, Saeed, Ahmed & Javed, 2012).

The suitability of leasing by corporate bodies can be seen in that it presents with less threat of loss of company control through bankruptcy, or the dilution of shareholding associated with the use of either debt or equity methods of financing (Owoeye, 2004).The Federal Inland Revenue Service of Nigeria (FIRS) Circular (2010) highlighted the growing popularity of leasing due to the domestic high costs of non-current assets, the shortage of foreign exchange raising costs of its imports and the accessibility through leasing, of a hundred percent (100%) credit financing. This is in contrast to financial institutions providing a percentage of asset value in loans to be augmented by the borrower. Wyslocka and Szczepaniak (2012) buttressed the point of significant lease patronisation as it tends to be evident amongst firms of varying scales and forms.

Leasing has become a customised financing mechanism employed by many sectors of an economy(Amembal, 2005). Oko and Anyanwu (2012) noted the growth of lease industries to

be above 10% annually in developed countries such as the United States, United Kingdom and Japan. In Africa, Wright (2004) pointed out the countries- Malawi, Uganda, Tanzania and Ghana as having gained from international lease cooperation. Though the lease industry of the continent is generally still gaining ground compared to what obtains in the advanced economies, Nigeria, in addition to Morocco, Egypt and South Africa, was placed among the top 50 countries in 2013 and 2014 by volume of lease transactions valued at 0.68 and 0.50 billion dollars respectively (White Clarke Group, 2015& 2016).Oko and Essien (2014) describedthe Nigerian lease sectoras heterogeneous in size as well as form (small, medium and target ticket markets) anddependent on the operations, buying capacity and management orientation of firms.

The Equipment Leasing Association of Nigeria (ELAN, 2015) highlighted the relevance of this finance alternative to the Nigerian economy given its contribution to capital formation in excess of 1.6 trillion nairawithinthe years, 2000-2014. The lease industry in 2015 recorded a growth rate of 27.39% with an outstanding volume of transactions valued at 1.1trillion naira. Out of this, finance leases accounted for a significant 75%with serviced industries including the oil and gas, transportation, manufacturing, telecommunications and agriculture (ELAN, 2016).Collectively, these industriescan also be discerned to have contributed to a consistent positive growth rate in leasing between the periods 2007-2015 with only a stunt in progression recorded from 2009-2012.

In the literature of finance, the impetus for leasing is well supported by the capital structure theories considering certain attributes of firms.Modigliani-Miller Theorem(1958) initially proposed the existence of perfectcapital markets devoid of taxes, transactioncosts, bankruptcy costs, information asymmetries and agency costs facilitating fluid access to finance by entities. The assumption of this state correspondingly implied that it was irrelevant which

method of financing an organisation used to conduct its operations as it was presumed to have no varying effect on the value of firms. With Fisseha (2010) noting the reality of the practical world being that markets are in fact imperfect, it brings to light the constraints associated with financial contracting and thus, capital structure, based on the frictions that apply to respective organisations.

Later deliberations on the Modigliani-Miller Theorem gave rise to other theories of firm capital structure that attempted to explain finance contracting in consonance with the identified market imperfections that subsist. Theories such as the agency cost, pecking order and bankruptcy costs consider these imperfections that are by extension, either characteristics in themselves discernible of firms (information asymmetry and agency costs) or a function of some (bankruptcy costs in the case of financially distressed firms which in turn is a consequence of leverage positions). The theories equally provide for firm attributes which are not market imperfections but could explain choices of finance by firms (profitability and growth opportunities).

In the context of the pecking order theory (Myers, 1984; Myers & Majluf, 1984), where information asymmetry abounds, higher costs of capital may prevail due to the consideration of risk (Cortez & Susanto, 2012). Financiers' attempt at forestalling the problems of 'adverse selection' (from an obscured perception of firm risk profiles) and 'moral hazard' (a tendency of firms to engage in riskier activities than accounted for by the lenders or investors)results in higher interest rates and required rate of returns.

In light of this, finance leases may therefore be a last resort alternative. Sharpe and Nguyen (1985), Ezzell and Vora (2001), Chau, Firth and Srinidhi (2006) corroborated that leases lower the costs of external financing associated with adverse selection and moral hazard.Its preference and ease in contracting could be attributedto the fact that it presents with priority

over all other forms(secured, unsecured debt and equity) in the event of bankruptcy. Finance leases potentially lower costs of financial distress to a lessor, due to higher capacity for repossession of leased assets than even collaterals in secured debts (Smith & Wakeman, 1985). From this, it can be inferred that companies with a likelihood of bankruptcywould be predisposed to leasing assets, being easier to contract(Krishnan & Moyer, 1994).

Expanding on the proposition, Myers and Majluf (1984), Harris and Raviv (1991) contended that investors in avoiding adverse selection, discount the prices of equity thereby making it costlyand compellingfirms to follow an order of preference in financing.Profitability of firms is said to reduce the tendency to engage in leasing as it provides first stage level of internal financing (Erickson & Trevino, 1994). Growth-opportuned firms on the other hand, may require significant funds from external sources for which a strategy of maintaining low-risk debt structures (as obtainable in leasing)may be deployed. Fama and French (2002) related this to forestalling underinvestment in the absence of internal funding.Finance leasing can likewiseimprove liquidity positions for high growth firms through cash conservation such that positive correlations between growth and leasing could be expected as found byLasfer and Levis (1998), Callimaci, Fortin and Landry (2011) and;Malik, Saeed, Ahmed and Javed (2012).

With corporate entities beingmajorlycharacterised by the separation of ownership and control, agency problems in form of management compromise of shareholders' interests and associated costs may arise as propounded by Jensen and Meckling (1976) in the agency cost theory. By the mitigating alignment of interests of managers and shareholders through e.g. directors'shareholding andintroduction of debt, the cash at disposal could however, incentivise managers to pursue risky investments (asset substitution) aimed at generating high returns for the shareholders in whose interests they act(Smith &Warner, 1979).

The subsequent exposure of debt holders to the risk by their investments and entitlement to only a fixed portion of the gain where the payoff is positive, leads to the constitution of mechanisms safeguarding their interests. These could be in the likes ofdebt covenants restricting management pursuit ofrisky though profitable investments, and demand for high interest rates. Myers (1977) highlighted further, the resultant underinvestment by corporate entities. In finance leasing, this, in addition toasset substitution could be avoidedbycommitting a firm to the use of an asset over the period of lease (Smith & Warner, 1979; Zhou, 2014).

Pursuant to the above, it could be posited that leasing be regarded as a substitute to regular debt. However, the literature remains divided with a section viewing lease to be a complement and thus giving rise to the coinage- 'Leasing Puzzle' (Ang & Peterson, 1984). Where extended debt financing is a function of borrowing capacity as inferred from the leverage position in the financial statements, finance leasing in particular could be a substitute having the same payment structure and encroaching effectof a capitalised liability (Myers, Dill & Bautista, 1976; Lewellen, Long & McConnell, 1976; Miller & Upton, 1976; Franks& Hodges, 1978; Adedeji & Stapleton, 1996; Deloof & Verschueren, 1999; Kang & Long, 2001; Mendes, 2015).

The argument for complementary relationships takes root in the contention that highly levered firms are constrained to the point that leasing becomes the only procurable option. Substitution itself can ironically be seen to givestrength to the proposition that leasing is indeed a complement source of finance (Lewis& Schallheim, 1992; Lasfer & Levis, 1998; Filareto-Deghaye & Severin, 2007; Eisfeldt & Rampini, 2009;Malik, Saeed, Ahmed & Javed, 2012).Considering the vast theoretical premise, a motivation to investigate the underlying characteristics of corporate entities that influence finance leasing decisions arises. This is partly predicated upon the assertion of Morais (2013) that there is absence of conclusive

evidence from studies across the globe on the direction and significance of relationship between firm attributes and leasing.

Likewise, with the persistent liquidity constraints experienced by businesses in Nigeria; high costs associated with other methods of financing; improvements in funding for lease operators enhancing capacity, as well as changes in the regulatory framework better securing lease transactions (ELAN, 2015), it is expected that leasing would be a commonly procured source of finance.However, the fact that in 2015, 80% of the transaction spread was handled by non-bank lessors whose concentration was on financing the Micro, Small and Medium scale Enterprises (MSMEs) (ELAN, 2016), it can be inferred that leasing may not be predominant in the corporate sector inclusive of listed non-financial firms with access to other forms of financing through the capital and money markets. It thus becomes imperative to ascertain in those companies identified as leasing, what firm attributes drive its presence given the dearth of empirical studies on the matter in Nigeria.

1.2 Statement of the Problem

Sharpe and Nguyen (1995), Mungami (2013) contended that little attention has been paid to empirical research on leasing in the capital structure of firms. This is more so evident in the limited number of studies emanating from the developing economies for which availability and access to financing options are posed with challenges (Ayyigari, Dermiguc-Kunt & Maksimovic, 2006). Reviewing a cross-section of studies on leasing in Nigeria, it is found that issues broadly dealt with centredon enhancing development of the lease industry (Oko & Isu, 2013; Oko, 2013; Oko & Essien, 2014; Oko & Egwu, 2014), lease financing effects on;liquidity position (Kurfi, 2005), financial performance of businesses (Hassan, 2008; Akinbola & Otokiti, 2012)andreporting compliance of lessee firms with accounting standards (Mamman, 2006). None of these studies focus on the relationship between firm attributes and

finance leasing despite the fact that the former affect the decision of organisations to venture into leasing arrangements.

Few studies available though, having a close link in the aim of explaining lease finance in firms, vary significantly on the basis of methodology and coverage. In recognition of the low level of leasing in comparison to other countries such as South Africa, and the cultural tendency to utilise loans even at high cost of capital, Oko and Egwu (2014) sought to determine the impact of psychology of asset ownership on leasing by corporate entities in Nigeria. The methodological approach thus focused on psychological variables (and not firm attributes) by assessing the management orientation of leasing and non-leasing firms. In the same vein, citing a preference for bank loans, Oko and Isu (2013) identified the causes of poor levels of leasing from a marketing perspective by assessing the principles, strategies and policies adopted in the banking industry (as against the lease industry)which secures for them an edge over the activities of leasing businesses thus, affecting the patronage of lease finance.

The shortcoming of these studies can be located in the fact that they precluded in analysis, other possible factors which could influence leasing by firms. It may be that there are certain features entities portray which make lease financing probable in their capital structure.Profitability of firms is said to reduce the tendency to engage in leasing as it provides first stage level of internal financing (Erickson & Trevino, 1994). Growth-opportunities in firmsrequire significant funds from external sources for which a strategy of maintaining low-risk debt structures (as obtainable in leasing) may be deployed. This forestalls underinvestment in the absence of internal funding (Fama and French, 2002). Finance leasing can likewise improve liquidity positions for high growth firms through cash conservation. Agency costs in form of underinvestment and asset substitution could be avoided by the use of finance leases (Smith & Warner, 1979; Zhou, 2014).

Where extended debt financing is a function of borrowing capacity as inferred from the leverage position in the financial statements, finance leasing in particular could be a substitute having the same payment structure and encroaching effect of a capitalised liability. Finance leases potentially lower costs of financial distress to a lessor, due to higher capacity for repossession of leased assets than even collaterals in secured debts (Smith & Wakeman, 1985). From this, it can be inferred that companies with a likelihood of bankruptcy would be predisposed to leasing assets, being easier to contract (Krishnan & Moyer, 1994).

In the presence of information asymmetry, higher costs of capital may prevail due to the consideration of risk (Cortez & Susanto, 2012). Financiers' attempt at forestalling the problems of 'adverse selection' (from an obscured perception of firm risk profiles) and 'moral hazard' (a tendency of firms to engage in riskier activities than accounted for by the lenders or investors)results in higher interest rates and required rate of returns. Finance leases may therefore be a last resort alternative.

The question thus, is how significant are specific firm characteristics such as profitability, growth opportunities, level of information asymmetry, agency costs, probability of financial distress and leverage in accounting for the use of leasing by corporate entities?A study of this nature is relevant given not only the role that leases plays in facilitating asset acquisition and enhanced productive performance of businesses, but the budding stage at which the industry still subsists in comparison to others, particularlythe developed nations.

Furthermore, examining studies that have been conducted on the subject matter of interest, Morais (2013)as earlier mentioned inferred the inconclusiveness of findings due to conflicting results achieved. This situation holds for the corporate attributes of interest examined by previous studies perhaps, due to the peculiarities of the individual settings they were conducted. For instance, mixed findings have been documented on how leasing is

influenced by profitability (Erickson & Trevino, 1994; Lasfer & Levis, 1998; Kang & Long, 2001; Brage & Eckerstom, 2009; Mendes, 2015),growth opportunities(Lasfer & Levis, 1998; Brage & Eckerstom, 2009;Callimaci, Fortin & Landry, 2011; Malik, Saeed, Ahmed & Javed, 2012; Li, 2014),and information asymmetry (Sharpe & Nguyen, 1995; Lasfer & Levis, 1998; Callimaci, Fortin & Landry, 2011; Malik, Saeed, Ahmed & Javed, 2012;Neuberger & Rathke-Doppner, 2012; Li, 2014).

The same incidence of a difference in findings can be discerned for leverage (Franks& Hodges, 1978; Ang & Peterson, 1984; Lasfer & Levis, 1998; Kang & Long, 2001; Filareto-Deghaye & Severin, 2007;Malik, Saeed, Ahmed & Javed, 2012;Mendes, 2015; Bialek-Jaworska &Nehrebecka, 2016),agency costs (Mehran, Taggart & Yermack, 1999; Robicheaux, Fu & Ligon, 2008; Brage & Eckerstom, 2009, Mungami, 2013; Munga & Ayuma, 2015) and financial distress (Smith & Wakeman, 1985; Erickson & Trevino, 1994; Filareto-Deghaye & Severin, 2007; Li, 2014; Mendes, 2015).A case can therefore be made for testing what results are determinable in the Nigerian context given that there subsists, a defined lease industry and a corporate sector including listed non-financial firms prone to investments in tangible non-current assets.

1.3 Research Questions

The following research questions were raised to guide the study:

i. What is the effect of profitability on finance leasing by listed non-financial firms in Nigeria?
ii. How do growth opportunities affect finance leasing by listed non-financial firms in Nigeria?
iii. In what way does information asymmetry affect finance leasing by listed non-financial firms in Nigeria?

iv. How does financial distress affect finance leasing by listed non-financial firms in Nigeria?

v. What is the effect of agency cost on finance leasing by listed non-financial firms in Nigeria?

vi. How does leverage affect finance leasing by listed non-financial firms in Nigeria?

1.4 Objectives of the Study

Theresearchaimed at determining the effect of firm-specific characteristics on the propensity to engage in finance leasing by non-financial firms quoted on the Nigerian Stock Exchange. Specifically, the objectives of the study were to:

i. Assess the effect of profitability on finance leasing by listed non-financial firms in Nigeria.

ii. Examine the effect of growth opportunities on finance leasing by listednon-financial firms in Nigeria.

iii. Ascertain the effect of information asymmetry on finance leasing by listed non-financial firms in Nigeria.

iv. Evaluate the effect of financial distressonfinance leasing by listed non-financialfirms in Nigeria.

v. Investigate the effect of agency cost on finance leasing by listednon-financial firms in Nigeria.

vi. Establish the effect of leverage on financing leasing by listed non-financial firms in Nigeria providing evidence for or against the substitutability between debt and leasing.

1.5Hypotheses of the Study

The following hypotheses were formulated in line with the objectives, and tested in the study:

$H0_1$ Profitability has no significant effect on finance leasing by listed non-financial firms in Nigeria.

$H0_2$ Growth opportunities have no significant effect on finance leasing by listednon-financial firms in Nigeria.

$H0_3$ Information asymmetry has no significant effect on finance leasing by listed non-financialfirms in Nigeria.

$H0_4$ Financial distress has no significant effecton finance leasing by listed non-financial firms in Nigeria.

$H0_5$ Agency cost has no significant effect on finance leasing by listed non-financialfirms in Nigeria.

$H0_6$ Leverage has no significant effect on finance leasing by listed non-financialfirms in Nigeria.

1.6 Scope of the Study

The study investigated the significance of specific firm attributes in explaining the tendency of firms to engage infinance leasing as lessees. The dismal nature of disclosure by corporate entities in Nigeria on operating leases hindered a broader scope forresearch on the criterion variable. The predictor variables studied were selected in line with the theories deemed relevant to leasing in the context of firm capital structure: profitability, growth opportunities and information asymmetry (pecking order theory); financial distress and leverage (bankruptcy cost,agency cost andpecking ordertheory) and agency cost(agency cost theory).

The tax position of firms as a characteristic does not fall within the scope of the study being that extant literature utilises it more in the comparative examination of operating lease as against finance lease. Differences in the tax position between the lessor and lessee for which

the transfer of non-debt tax shields (capital allowances)to the lessor, in exchange for low lease payments can be facilitated in operating leases(Morais, 2013; Mendes, 2015). In relation to finance lease, the issue of tax can be viewed as geared towards lowering (through tax savings on deductible interest expense and capital allowance on leased assets), the effective tax rate of lessee corporate entities. Future studies can however, consider the simulation of what the effective tax rate will be independent of finance lease transactions as an explanatory variable in finance lease research. The success of this depends on improved reporting practices where a disaggregation of lump sums enables the exemption of items related to finance lease.

The research in addition, excluded the variables, asset specificity (nature of asset)cited by Morais (2013) as used in Klein,Crawford and Alchian (1978); Smith and Wakeman (1985); Williamson (1988); Erickson (1993); Krishnan and Moyer (1994); Graham, Lemon and Schallheim (1998); Gavazza(2010) and Mendes (2015) as well asassettangibility used by Mendes(2015) on two grounds.First, any form of asset whether firm-specific or general purpose can be finance-leased as long as the intent is to acquire ownership of the asset or exhaust much of its economic useful lifethusrendering it irrelevant to the decision.Secondly, asset tangibility was from the outset made to serve as the defining feature of the population and subsequent sample of firms selected for the study.Its definition by Mendes (2015) to mean availability of collateral is not a contracting necessity for finance leases being that the leased asset serves as the collateral. Its study is aptly suited for comparative analysis against an alternative finance like conventional loans and on the assumption that it ranks higher in preference to leasing(contradicting the pecking order theory).

The focus of the study was onnon-financial firms listed on the Nigerian Stock Exchange.Financialentitieswere excluded dueto reasonsidentified by Rajan and Zingales (1995) and which include;influence of regulations on capital structure throughminimum

requirements as well as dissimilarities inits compositionespecially with regards to debt. In addition, financial institutions particularlybanks assume dual roles as lessors and lessees of assets.To better achieve the objective of the study, concentration wastherefore onfirms that engage in leasing strictly as lessees.

The scope covered a time-frame of nine (9) years from 2007-2015 and is considered adequate in drawing valid inferences as well as attaining currency in the contribution of the study to existing literature on leasing in Nigeria. In further justification, the entire periodwitnessed consistent positive increase in total leasing activities although a declining growth rate was noticeable between the years 2009-2012.

1.7 Significance of the Study

The input of the research is through a departure from (in objective and methodology) and an extension to (in findings), previous local studies whose focus has largely been on the marketing aspects of leasing businesses to explainthe nature of the leasing industry and chartcourses for business growth. By highlighting the factors in terms of firm characteristics that influence finance leasing as a means to asset acquisition, organisational policy on the direction or target of said marketing activities can be informed. The management of leasing businesses will therefore benefit as leasing penetration particularly in the listed non-financial firms can be planned with the consequent enhancement of financial performance and the maximisation of value of investments by financiers.

The study has been meticulous in the selection of firm-specific variables deemed relevant to finance leasing and as justified in the scope.Changes in financial reporting of the variables used in the study with the adoption of International Financial Reporting Standards (IFRS)from 2012have also been controlled for. This can serve as a reference point and guide to researchers in conducting further studies on the effect of firm attributes not just on finance

leasing but other components of the debt-equity mix of capital structure. The expectation holds that relevant addition has been made to the body of literature enhancing understanding of the diverse nature of corporate financing.

CHAPTERTWO
LITERATURE REVIEW

2.1 Introduction

Thechapter presents a review of the concept of lease narrowed to its principal forms- finance and operating. Definitions by various authors and the accounting standard are examined in order to have a working concept that is most encompassing. Empirical studies with emphasis on the firm attributes i.e. profitability, growth opportunities, information asymmetry, financial distress, agency costs and leverage,investigated in the research as accounting for finance leasingare critiqued to accentuate shortcomings and consequentlygivedirection.Thechapter ends with the theoretical framework for the study which comprises the agency cost, pecking order and bankruptcy cost theories that together explain capital structure choices.

2.2 The Concept of Lease

Yan (2006) defined a lease as a contractual agreement between two parties; a lessor and a lessee that provides the use but not ownership of an asset for a specified period of time and in exchange for a series of payments. It is a customised method of financing most noted for its favourable cash flow and tax peculiarities as lessees can modify payment terms, lease duration, purchase options and be availed with tax savings (Malik, Saeed, Ahmed & Javed, 2012).Eades and Marston (2002) acknowledged the flexibility of leasing in financing the acquisition of assets and even so, the use of assets without necessarily securing ownership at the end of the contracted term.

In regulatory context, the Banks and Other Financial Institutions Act of Nigeria (BOFIA, 2004) as cited in the Revised Guidelines for Finance Companies in Nigeria (2014) has conceptualised lease (leasing) as a business of letting or subletting properties with mobility, for use by a party referred to as a hirer or any other, but with the ownership of the asset being

that of the lessor irrespective of the agreement including an option to purchase or not. The separation of ownership and use results in the lessee deriving earnings from the employment of the asset whereas the lessor in addition to receiving periodic payments is protected by the retention of title to the asset (Deelen, Dupleich, Othieno & Wakelin, 2003).

The International Accounting Standard (IAS) 17:4 (IASB, 2010) also recognised a lease as an agreement whereby the lessor conveys to another, the lessee, in return for a payment or series of payments, the right to use an asset for an agreed period of time. The lessor in this case refers to the owner of the asset and the lessee, the party to whom the right of use is granted. According to the standard, in transfer of a right to use, depending on the substantial conveyance of risks and rewards of ownership, leases can be classified asfinance or operating.

Correspondingly, the Statement of Financial Accounting Standards (SFAS)No.13issued by the United States Financial Accounting Standards Board (FASB, 1976) viewed a lease as a contract that facilitates the right to use property, plant or equipment within a defined period of time. The transfer of this right qualifies the agreement as a lease even where a significant amount of servicing in form of maintenance or insurance is to be provided by the lessor.

In the course towards a new standard on lease by the International Accounting Standards Board (IASB) and the FASB, given concerns over the faithfulness of its reporting in the financial statements under the prevailing standard (IAS 17), there has been a clarification of what is meant by ‘right of use’ as stated in the Exposure Draft (2013). This is said to indicate an instance where the lessee exercises exclusive control and discretion over the use of the asset for a period of time. Where this is the preserve of the supplier, the transaction would not qualify as a lease but instead a service irrespective of the location of the asset being with the lessee or not (Lease Project Update, 2015). By virtue of the newly releasedInternational

Financial Reporting Standard (IFRS) 16, all leases so definedare to be recognised and reported as long term obligations in the financial statements excluding portions that connote a service (IFRS 16 Project Summary, 2016).

All the above definitions do not appear to contradict each other in content and implication though that given by the BOFIA (2004) is constrictive in suggesting mobility of assets leased. The study therefore aligns itself with the concept of lease as defined by the FASB (1976), Yan (2006),IASB(2010) and IFRS 16 (IFRS, Project Summary, 2016).

2.2.1 Finance Lease

A finance lease is a non-cancellable contractual agreementrequiring the payment over a period, of an amount that ensures the amortisation of the cost of the asset and a provision of return inform of interest to a lessor. This is coupled with the option given to the lessee to purchase the asset at the end of the agreement for an amount (usually a percentage) of its fair value at the time (Revised Guidelines for Finance Companies in Nigeria, 2014). Akinola (2013) described the arrangement as one where the lessee is given the 'first right of recourse' (priority) to purchase the asset at a nominal value. The option to purchase can be at the end of either the primary (first) or secondary (renewed) lease tenure (Oko & Essien, 2014).

Finance lease is characterised by the rewards and risks of ownership being substantially transferred from the lessor to the lessee (IAS 17:8).The lessee utilises the asset, enjoys generated economic benefits and at the same time, bears costs such as maintenance, insurance and depreciation (amortisation) of the asset. This is in addition to making lease payments. Besides obsolescenceand disposal infeasibilities, risks of ownership include fluctuations in the fair value of the residue of the asset that could result in a gain or loss to be borne by the lesseeespecially where a sale is intended after exercise of the option to purchase(IAS 17:11b).

The standard further described the situations that would result in the classification of a lease as finance. These include where: there is transfer of ownership through an option to purchase at the end of the lease term or implicitly, the useful life of an asset; the period of lease covers a major part of its economic life; asset nature is typicallyspecialised and the present value of minimum lease payments amounts to all or greater than the fair value of the leased asset (IAS 17:10). The SFAS 13 is specific in providing that lease terms must cover 75% or more of useful life and present value of lease payments at commencement of a lease should be at least 90% of the fair value of the asset (Demper, 2012).

Other variants of a finance lease which is sometimes referred to as a capital or full pay-out lease (Oko & Essien, 2014), include the leveraged lease and sale-leaseback transaction. The leveraged lease is one where a third party other than the lessor and lessee is involved- usually a financial or lending institution that provides for a significant part of the asset purchase price (FIRS, 2010). The sale-leaseback occurs in the form of a sale of an asset and its subsequent lease thus improving firm liquidity with the uninterrupted possession and use of the asset (Stojanovic and Guzovski, 2013). A finance lease can equally be a sale-type for the reason that gains or losses accrue to the lessor where the fair value of the leased asset is higher or lower than the carrying amount in the financial statements (of the lessor) at the commencement of the lease agreement (FIRS, 2010).

As per IAS 17, a finance lease causes an asset and liability to be represented on the statement of financial position in the accounts of the lessee at an amount that is the lowest of either the fair value of the asset, or present value of future lease payments. In the income statement, an expense is provided for the depreciation charge on the asset (or amortisation of right of use), in addition to the periodic interest paid or payable on the lease liability.A leased asset is subsequently shown at carrying amount while the liability is reported at an amortised value

exclusive of interest and principal repayment due.These exclusions relating to finance lease could also be shown as part of the short term obligations due within twelve (12) months from the reporting date.

The definitions reviewed are discerned to be convergent. That given by the Standard is however incisive and adopted as a working concept of the study.

2.2.2 Operating Lease

Stojanovic and Guzovski (2013) definedan operating lease as a kind of servicein which the lessor incurs maintenance and other related costs that are incorporated into the lease payments to be received from the lessee. It is an agreement for a period that is significantly shorter than the economic useful life of an asset and where the risks and rewards of ownership remain with the lessor. This implies that eventual amortisation of the asset cost and realisation of profit by a lessor can only occur at the end of a (all) primary tenure (s)when the asset becomes the preserve of the lessor(at each point) to lease again or sell (Oko & Essien, 2014). Operating leases are prone to cancellation particularly for a reason such as technological advancements that may render the asset obsolete to the needs of the firm.

Thomson (2005) identified motives for operating lease preference to include minimisation of risks, opportunities for tax savings, and enhanced financial indicators. Entities are spared the risks of obsolescence and consequent losses through idle/non-existent capacity of outdated assets. This is a risk of ownership that is avoidable under operating leases. Tax savings can be enjoyed with the lessees able to negotiate for low lease rental payments in exchange for capital allowances claimable by the asset owner. This holds in the case of a lessor bearing a higher tax rate burden than the lessee. Debt capacity is preserved by keeping the lease liability off the statement of financial position which improves firm financial ratioslike leverage, profitability and solvency.

An innovation to operating lease can be seen in synthetic leases- a lease facilitated through the use of Special Purpose Entities (SPEs) to purchase assets which are then leased by the principal firm. This form of lease ensures that the asset is kept off the statement of financial position (as operating leases) with lease rentals expensed on a straight-line basis over the lease term (IAS 17:33).The same leased asset qualifies for capital allowances through the SPE (Huang & Yildirim, 2006).Operating leases are only required to be disclosed in the notes to the accounts of lessees.

Subsequent to the possibilitythat provisions of IAS 17 could encourage entities to structure lease agreements to be operating in order to exploit the inherent accounting advantages, there has been a clamour for an overhaul of the current lease standard which is deemed to defeat the goal of faithful financial reporting, and the introduction of a system whereby all leases irrespective of type would be accounted for on the statement of financial position (IASB & FASB, 2011). This is expected to ensure that rights and obligations that meet the definition of assets and liabilities in the Conceptual Framework of the IASB are capitalised. With the publication of the IFRS 16 on Leases in January, 2016, there is the potential that a significant increase in the level of currently reported finance leases would result once capitalisation is secured with effect from January, 2019 (IFRS 16 Project Summary, 2016).

Achieving this will require firms to re-assess and re-classify transactions. The task inherent will bereporting reliablevalues of confirmed leases on the statement of financial position. In research, some studies have attempted to estimate fair values of operating leases to aggregate with finance leases. These works have mostly built up on the capitalisation models of Imhoff, Lipe and Wright (1997) such as: Durocher (2010); Tai (2013); De Villiers and Middleberg (2013) and McCarthy, Cotten and Schneider (2014).Considering the poor disclosure on operating lease transactions by the listed non-financial firms in Nigeria, a replication is

rendered impracticable and thus necessitates the exclusion of operating leases from the scope of the study. A review of the concept as done, servesthe purpose of information and a highlight of a possible gap that can be filled by future studies in enabling conditions.

2.3 Firm-Specific Attributes and Finance Leasing

The section discusses each of the firm-specific attributes assessed in the study - profitability, growth opportunities, information asymmetry, agency costs, financial distress and leverage in relation to finance leasing.An attribute can be defined as a characteristic peculiar to a firm or common across firms. Corporate entities are typically set up with the business objective of maximising profits and shareholder wealth. This objective also translates into strategies for growth and expansion. Therefore, trend of performance and growth opportunities can be features used in defining firms. The distinction between owners/investors and corporate organisationswhich are entrusted to management, breeds ground for agency costs and information asymmetry equally defining attributes for firms. Leverage, being the degree of debt use in capital structure can determine the classification of firms as distressed, whererisk of default on obligations arises.

2.3.1 Profitability

The relationship between profitability, an indicator of firm earnings (Fisseha, 2010) and leasing can be discerned in the context of the pecking order theory of Myers and Majluf (1984) - the preference structure for internal and external financing. Internal sources of funds are made up of the portion of earnings that a firm retains for re-investment in the entity. Assuming the maintenance of a constant/target dividend payout policy, the greater the level of profitability, the greater the proportion of retained earnings to finance asset acquisition and consequently, the lower the level of leasing. Erickson and Trevino (1994) posited that leasing being a debt-like form of finance should be low with the availability of internal funds.

Empirical works such as Toy, Stonehill, Remmers, Wright and Beekhuisen (1974) and Baskin (1989) have found debt ratios to be negatively related to profitability.

The relationship between profitability and leasing is thus expected to be negative as supported by the studies of Ang and Peterson (1984), Deloof and Verschueren (1999)**,** Kang and Long (2001), Brage and Eckerstom (2009) and Mendes (2015). Erickson and Trevino (1994) however, found a statistically insignificant relationship. In contrast, Lasfer and Levis (1998) estimated a positive relationship between profitability and leasing by large companies. This can be explained by the tax deductible expenses that large profitable firms obtain with the use of finance leases.The interest portion of lease payments made as well as expenses relating to the insurance and maintenance of the leased asset are tax deductible for the computation of Company Income Tax (CIT). Lesseesare likewise entitled to claim capital allowance on the asset in lieu of the depreciation that is provided for in the financial statements.

It is worth noting the measure for profitability used by the studies, Ang and Peterson (1984),Deloof and Verschueren (1999), Kang and Long (2001), which is Earnings before Interest, Taxes, Depreciation/Amortisation (EBITDA). The exclusion of interest, taxes, depreciation and amortisation can be justified by the fact that these variables are to an extent also determined by leasing activity and their non-inclusion will forestall the endogeneity of the profitability measure as an independent variable. This can be considered a better measure than that used by Lasfer and Levis (1998) and Mendes (2015) which is the Earnings before Interest and Taxes (EBIT) after deduction of depreciation/amortisation.

2.3.2 Growth Opportunities

Growth can be explained in terms of expansion in scale of operations or investments that will enhance the value of a firm. Growth opportunitiesspur the need for finance. With this, tends

to be a strategy of cash conservation and going by the pecking order theory (Myers & Majluf, 1984), when internally generated finance is exhausted, firms will seek external sources. Leasing ranks in preference because it enhances liquidity through the spread of lease payments that are equally tied to the returns generated by the use of the asset.This is in contrast to a one-off commitment of resources inherent in a purchase. Leasingin high growth firms will also tend to avoid the agency costs of conventional debt financing such as asset substitution and underinvestment due to debt overhang(Myers, 1977; Krishnan & Moyer, 1994; Barclay & Smith, 1995; Lasfer, 2005).

A positive relationship between growth and leasing was found in the works of Krishnan and Moyer (1994), Erickson and Trevino (1994), Adams and Hardwick (1998), Lasfer and Levis (1998),Mehran, Taggart and Yermack (1999), Lasfer (2007) andCallimaci, Fortin and Landry (2011). Brage and Eckerstom (2009) arrived at a positive but insignificant relationship.Differing still, Erickson and Trevino (1994); Malik, Saeed, Ahmed and Javed (2012), Mungami (2013)concluded on a negative relationship whereas Li (2014) achieved an absence of correlation. Erickson and Trevino (1994) used dual proxies which explain the contrasting findings.

The measures for growth opportunities in the studies cut across; additions to non-current assets (Erickson & Trevino, 1994; Brage and Eckerstom, 2009; Li, 2014), dividend pay-out ratio(Brage & Eckerstom, 2009), sales growth (Erickson & Trevino, 1994; Brage & Eckerstom, 2009) and ratio of market value of equity to its book value (Lasfer & Levis, 1998, Callimaci, Fortin & Landry, 2011; Malik, Saeed, Ahmed & Javed, 2012; Mungami, 2013). Lasfer and Levis (1998) noted the significant use of this latter measure in the literature.

2.3.3 Information Asymmetry

Information asymmetry refers to a situation of discrepancy or distortion in the knowledge that is available to the management of firms and the investors of such firms. Ezzell and Vora (2001) highlighted the role of leasing in reducing high cost of finance resulting from an attempt to mitigate the effects of adverse selection- the tendency to finance risky firms in the absence of information that would have forestalled such investment decision. Myers and Majluf (1984), Krishnan and Moyer (1994) likewise regarded leasing to be preferred in the presence of information asymmetry being an equivalent to secured debt and taken to be safe, low-risk in the hierarchy of finance sources.

Chau, Firth and Srinidhi (2006) contended that the problem of moral hazard; engaging in suboptimal behaviours (due to the separation of ownership and control) detrimental to the interest of the principal party (in this case, a lessor) can be offset by the contracting of finance leases with an option to purchase. This will necessitate responsible actions on the part of the lessee being that ultimate ownership of the asset is expected to be obtained.

Information asymmetry can be said to positively correlate with the leasing propensity of firms.Prior works use size as a measure for the level of information asymmetry reason being that smallfirms tend to present investors with greater level of uncertainty as to performance and prospects in contrast to large firms (Adams & Hardwick, 1998; Callimaci, Fortin & Landry, 2011; Mungami, 2013). The high information asymmetry with small firms consequently leads to limitations in accessing other sources of finance and increase in leasing (Sharpe&Nguyen, 1995). From a differing perspective, small firms may also not be prone to using an asset over its entire economic useful life and as such, will prefer to lease rather than own/purchase (Adams & Hardwick, 1998).

A positive relationship is thus expected between information asymmetry and leasing as established in the following works: Sharpe and Nguyen (1995), Adams and Hardwick (1998),Eisfeldt and Rampini (2009), Malik, Saeed, Ahmed and Javed (2012), Mungami (2013) and Li (2014).Neuberger and Rathke-Doppner (2012) interestingly found that firms with high information asymmetry may likewise be constrained beyond the general credit market and in securing lease financing.

Other variables that can be discerned from the literaturefor measuring information asymmetry include: dividend payment (for its signalling properties), number of employees where size is a proxy as used in Sharpe and Nguyen (1995); abnormal earnings, percentage of independent directors on aBoard as used in Li (2014) and total assets as used in Malik, Saeed, Ahmed & Javed (2012).Firms with positive future abnormal earnings are deemed to be of high quality and thus, have low information asymmetry as posited by Li (2014). The greater the percentage of independent directors on a Board as a corporate governance mechanism, the lower is expected the information asymmetry.

2.3.4 Financial Distress

The probability of a firm going bankrupt can constrain its access to external finance. Krishnan and Moyer (1994) posited that the higher the potential for bankruptcy in a firm, the higher the tendency to engage in leasing as it may be the only option of financing procurable as well as the lowest in terms of costs. Their study found that lessee firms had poor Z-scores indicative of risk and immaturity. The Z-score is a measure for financial condition adopted by studies such as Erickson and Trevino (1994), Brage and Eckerstom (2009) and Mendes (2015). Li (2014) hypothesised in the same vein that leasing should occur in high risk firms with a proxy of debt coverage ratio employed. This was equally used in the study by Filareto-Deghaye and Severin (2007).The aforementioned studies found a positive relationship

between the probability of bankruptcy (financial distress) and leasing with the exception of Li (2014) that concluded on an absence of correlation.

Smith and Wakeman (1985) opined that in the event of bankruptcy, it is easier for the lessor to regain possession of an asset than a secured lender with collateral. The lessor would consequently offer lower interest rates that make leasing attractive. This position will hold for as long asthe advantage inherent in low bankruptcy costs to the lessor, are not offset by high transaction costs (Lease, McConnell & Schallheim,1990; Krishnan & Moyer, 1994).

In relation to finance leases, it is possible for transaction costs to be high for some reasons. Contracts may be more complex than those for secured loans; limitations to diversification of asset composition by the lessees may portend and; potential costs may arise with a firm reneging/cancelling the agreement (which is otherwise meant to be non-cancellable) or disposing of the leased asset when legally acquired (Brage & Eckerstom, 2009). If transaction costs are significantly higher than the bankruptcy cost savings, financially distressed companies may not find leasing to be a worthwhile alternative.

2.3.5 Agency Costs

The management of corporate organisations has afiduciary duty in exercisingdiscretion towardsthe pursuit of firmvalue maximising activities. Abuse of such position of trust by engaging in sub-optimal, self-utility enhancing investments, presents an agency cost. Equity finance could foster a problem of free cash flow- cash in excess of investments.The introduction of debt, a fixed payment contractual obligationhelps to secure this free cash flow (Harris & Raviv, 1991) and force firm value maximising investments in order to meet debt obligations (Jensen, 1986). Therefore, on the argument that leases and debt are substitutes, leasing can be seen to mitigate agency cost of equity financing.

Directors' shareholding is a complementary mechanism for reducing the agency cost of equity. In the presence of regular debt and directors'shareholding which both result in an alignment of interest between management and shareholders, agency costs of debt can generate in form of asset substitution (Myers, 1977) and underinvestment. Leasing can minimise asset substitution with existing debt by further contracting a firm with asset-based debt finance. Another way the problem is forestalled is that as a non-cancellable lease agreement, finance leasing commits a firm to utilise an asset over the period of the lease (Chigurupati & Hegde, 2009).

Underinvestment due to debt overhang can be circumvented through leasing as it portends with higher security and lower bankruptcy costs for the lessor. Financially constrained firms with limited access to regular cash-based debt financing as a result of leverage positions, or those faced with premiums on interest rate due to anticipated asset substitution can achieve asset acquisition by leasing.

It is thus expected that directors' shareholding should correlate with the presence of finance leases in listed firms (Mehran, Taggart & Yermack, 1999; Robicheaux, Fu & Ligon, 2008; Mungami, 2013). Brage and Eckerstom (2009) using leverage measures as proxies for agency costs, find a positive correlation between the agency costs of debt and leasing. Munga and Ayuma (2015) however concluded on a negative relationship which could be premised on the incidence of high agency costs between a lessor and lessee.This can be attributedto the separation of control from asset ownership that could foster morally hazardous behavior even in finance leases where the option to purchase is not exercised. The high agency costs could be factored into lease payments making it expensive and warranting low patronage.

2.3.6 Leverage

Leverage is the extent of debt finance that a firm employs in its capital structure. The relationship between leverage and leasing has remained inconclusive in empirical research.Literature is split between the substitutability or complementarities of debt and leasesnot resolving the 'Leasing Puzzle' as referred to by Ang and Peterson(1984).Myers, Dill & Bautista (1976); Lewellen, Long and McConnell (1976); Miller and Upton (1976); Franks and Hodges (1978);Adedeji and Stapleton (1996);Deloof and Verschueren (1999); Kang & Long (2001) and Mendes(2015),contended that leasing affects the debt capacity of firms and are substitutes. This can be understood in terms of leases being long term fixed contractual obligations on the firm to make periodic payments amortising the capitalised liabilities.

Malik, Saeed, Ahmed and Javed (2012) reasoned that the substitution explanation can be the basis for understanding complementary relationships where they exist in the sense that firms with limited access to debt-financing or constrained debt capacity characterised by high gearing, can resort to leasing as a 'substitute' and 'complement' to existing debt. Krishnan and Moyer (1994) posited that for these firms, it may be the only option available or the option with lower costs. Ang and Peterson (1984) found that firms with high level of leased assets tended to have more debt in their capital structure. This is corroborated by the works of Lewis and Schallheim (1992),Lasfer and Levis (1998), Filareto-Deghaye and Severin (2007), Eisfeldt and Rampini (2009) and Malik, Saeed, Ahmed and Javed (2012).

Smith and Wakeman (1985) proposed the nature of asset as an explanation for complementary relationships besides debt capacity and costs. Assets that are prone to obsolescence risk or required for a period that is shorter than useful life will most likely be leased independent of debt levels/capacity.Leasing in this context refers to operating lease

arrangements. Even so, Anastassiou and Tsaklanganos (2013) noted that the assumption of a complementary correlation between leases and debt may be misleading as is the case with operating leases which are deemed to have no effect on firm leverage. This is however an accounting illusion that is disregarded by financial institutions in assessing the borrowing capacity and default risk of firms.Credence can therefore be given to the substitutability between debts and leases.

In assessing the relationship between leverage and leasing, Lasfer and Levis (1998) employed the ratio of long term debt to capital employed while Filareto-Deghaye and Severin (2007) utilised ratio of long term debt inclusive of leasing to equity. These two measures can be criticised on the potential for endogeneity being that they fail to exclude or imply the exclusion of the variable (leasing) for which explanation is being sought. Mendes (2015) had a better proxy in long term debt exclusive of capital (finance) leases to assets ratio. However, leased assets make up total assets value and it was not expressly stated if its non-inclusion was ensured. Malik, Saeed, Ahmed and Javed (2012) were meticulous in excluding finance leases in liabilities and assets for a measure of debt ratio- total debt to total assets, which seems most appropriate.

2.4 Review of Empirical Studies

Mehran, Taggart and Yermack (1999) profferedownership structure to be an important contributorto leasing. The case for its examination in relation to finance leases exclusively can be made in the sense that directors'shareholding first, expectedly aligns manager-shareholder interests.This increases the risk of existing/potential debt-holders and translatesto agency costs of debt financing. The study sought correlation between Chief Executive Officer (CEO) ownershipand finance leases finding a significant positive relationship.In a separate model, total leases were considered inclusive of operating leases to conclude also on a

significant positive association.This was deemed necessary on the possibility of managerial ownership incentive for risk minimisation through transfer in operating lease transactions.While operating leases may reduce or diversify management/shareholder risk associated with assets, finance leases couldequally reduce risks inherent in asset substitution and underinvestment.

Perhaps this served as motivation for a study by Robicheaux, Fu and Ligon (2008) where investigation was made into the tendency of firms with corporate governance mechanisms aimed at controlling the agency costs of equity, to engage in leasing as an agency cost reducing debt structure. Data was retrieved from Compustat database having been sourced from company proxy statements,financial statements and a financial publication. This was for a filtered sample of 229 firms over the period 1992-2004.Research interest is narrowed to observations of Robicheaux, Fu and Ligon (2008) in respect of finance leases.

Considering measures of CEO compensation (cash and stock options), CEO ownership (percentage and monetary equivalent), board structure (size and proportion of independent directors) and leasing (capital/finance lease, operating lease and total lease share), the study employed Pearson' Correlation, Ordinary Least Square (OLS) regression and Simultaneous Equation to ascertain a relationship between the variables.Simultaneous Equation was centred on the link between executive compensation and total leasing.

It was found that the relationship between corporate governance variables and finance/capital leases is generally insignificant. In the Ordinary Least Square regression, only the monetary value of the CEO stock ownership was found to be positively significant as regards the use of finance leases. This led to the conclusion of a weak association between corporate governance mechanisms and lease financing. Possibly, the results could be attributed to the fact that for the sample, the percentage of assets financed by capital/finance leases amounted

to less than 0.1%. As for the Simultaneous Equation model, a complementary relationship was found between compensation structures and total lease shares.

Two constraints with the above study can be identified in the construction of a Simultaneous Equation model(which brought to the fore, the inadequacy of data as per model requirements) and the acknowledged possible endogeneity of variables employed by the study as exogenous (board size and percentage of outside directors). The assumption of the similarities in correlation coefficients of the basic sample data and that of a derived larger data set to be enough affirmation of the validity or adequacy of the basic sample to deploy the simultaneous equation technique is contestable. Likewise, the problem of endogeneity on the larger data set could have been solved bythe use of valid instrumental variables as in the System Generalised Method of Moments (GMM) estimation given the large sample, or a Bootstrap based bias correction suggested by De Vos, Everaert and Ruyssen (2015) for the Fixed-effects regression employed.This would have sufficedinstead of 'choosing to interpret results with care'

In evaluating the influence of finance contracting costs on companies' motivation to lease capital assets, Sharpe and Nguyen (1995) studied Compustat data for a period covering 1985-1991. Tobit regression was conducted to assess the relationship between finance leases and the following predictors; information asymmetry, cash flow and debt rating. Controlling for size, tax, economic incentives, asset typeand inflation effects on book value of assets, there was found to be some evidence that constrained firms engage in finance leasing although weak (perhaps due to significantly less observations with finance leases). The conclusion was that firms that are non-dividend paying resort to leasing due to high information asymmetry in the case of non-signalling. Debt rating was found to have an insignificant relation to

leasing whereas size and cash-flow presented a positive relationship.These results may be biased due to less variability in the observations for analysis.

Callimaci, Fortin and Landry (2011) examined specific firm characteristics and leasing propensity of a sample of 228 and 227 listed Canadian firms for the years 2006 and 2007 respectively. The predictor variables were; tax position, financial constraint, ownership structure, growth and size while the explained variable was measured in terms of operating lease, finance lease and total lease ratios. Using Censored Tobit regression and controlling for industry, it was found that finance leases decrease with the cash flow coverage and tax position of a firm but increase with ownership concentration, financial constraint, growth and size. As for ownership structure measured by concentration, the study explained the use of finance leases by the motive to leverage out risk. In relation to size, large firms may be able to access leasing due to ease in monitoring by lessors compared to small firms as opined by Mungami (2013).The justification for considering only two years, loosely and weakly linked to the economic strength of Canada thenis deemed insufficient.

In the same trajectory, Malik, Saeed, Ahmed and Javed (2012) analysed through regression, the effect of firm specific attributes covering ownership structure, growth rate, size, cash flow coverage and leverage on finance leasing by 163 quoted firms in Pakistan for the year 2009. No justification however, was given for the use of a single time point instead of a series of years. Firm size and growth were found to have a negative relationship with leasing while leverage and cash flow coverage were found to be significantly positively related. Ownership structure (concentration) was concluded to have a positive relation with leasing in closely-held companies.Mungami (2013) established that for non-financial firms listed on the Nairobi Stock Exchange between 2004 and 2009, cost of capital, size,information asymmetry,

financial performance, management compensation and CEO share ownership were significant explanatory variables for finance leases using Panel Logit regression.

On a composite of qualitative data gathered through questionnaire administration and quantitative data extracted from the annual reports, Munga and Ayuma (2015) examined the influence of financial resource availability, cost reduction potential, agency costs and cost of borrowing on the use of lease financing by public institutions in Kenya- a case study of the National Treasury. A correlation analysis led to the finding that availability of financial resources and presence of agency costs are negatively related with lease finance whereas, cost reduction and cost of debt are positively related.

Agency costs can be attributed to problems that may arise between the lessor and lessee of the asset being that judicial ownership of the asset still lies with the lessor.Moral hazard behaviours on the part of the lessee may be encouragedwith the option to purchase not exercised. This problem may explain the negotiation, administration and enforcement costs associated with the attempt of a lessor to safeguard interests (Smith & Wakeman, 1985).

The methodology of the study can be criticised on the use of stratified random sampling of the entire population of staff. A purposive sampling would have been preferred to ensure that those specifically concerned with the financial administration of the case study serve as the target respondents. This would have better facilitated informed responses and consequently high quality/reliability of the data used for analysis and conclusions.

Correspondingly, Brage and Eckerstom (2009) investigated the similarities and differences between high leasing Japanese and low leasing Swedish firms as a basis for understanding lease financing in these two countries. Qualitative and quantitative research approaches were adopted through surveys and interviews with company representatives, industry experts as well as reference to company financial statements. Profitability (negative), bankruptcy risk

(positive) and agency costs associated with leverage (positive) were reported to have a strong correlation with leasing in Japanese firms. In spite of the findings that these firms had a higher dividend pay-out ratio than Swedish counterparts which translates to a lower cash ratio for financing growth opportunities, growth was concluded to have a weak link to leasing levels.

In a two stage regression process- Logit and OLS, Kang and Long (2001) on Compustat data of firms for the period1984-1993first determined the factors influencing the use of fixed-payment financing defined as conventional debt and leasing. Overall, leverage was accounted for by asset tangibility and showed a negative relationship with risk, profitability, research, development and advertising expenditures. In addition to the residuals of the first regression, variables as proxies for tax position, industry and asymmetric information were subsequently used to run a second regression that specifically explains leasing levels inthe said firms. It was found that tax position and size are negatively and significantly correlated with finance leasing. The manufacturing industry was noted to lease less than others due to perceived difficulty in monitoring leased assets. For the residuals, a negative relationship was found indicating that firms with higher levels of fixed financing usedless of finance leasing. The acknowledged shortcoming of the study is the survivorship bias inherent in the database utilised.

Shifting focus to a sample of Small and Medium scale Enterprises (SMEs) in France, Filareto-Deghaye and Severin (2007) sought to determine the characteristics of firms engaged in leasing as well as the relationship between leasing and credit rationing for the period 1999. The study adopted the use of Kohonen Maps (a neural network system) inspired by the work of Cottrell, De Bodt and Henrion (1996). This was deemed capable of avoiding methodological biases with other techniques such as the Discriminant Analysis of Altman

(1968) and Logistic regression.Kohonen Maps facilitate better distinction of firms according to leasing activity for a focused analysis of the features motivating such financing strategy.Size, age and solvency were found to have a negative relationship with leasing whereas probability of bankruptcy and leverage, positive. A strong, significant relationship was further established between leasing and credit rationingi.e., the more constrained firms are to access finance, the greater the tendency to engage in leasing. It is worth noting that there are criticisms as to the structure of neural networks' non-conformation to existing theories as well as limitations to explanatory power (Filareto-Deghaye & Severin, 2007).

In a separate studyon small companies, Neuberger and Rathke-Doppner (2012) examined a dataset of 3,600 lease requests to a bank-related leasing company in Germany for the period 1998in order to investigate the determinants of the probability/use of leasing by these companies. Firm specific criteria such as size, age, industry, legal form, entry in commercial register and number of managers were examined in relation to the proportion of leases out of non-current assets specifically, property, plant and equipment. Subsequent models measured leasing in terms of lease liabilities to total and non-current assets withTobit regressionresultsproving firm size and firm age to be significant determinants.

However, the inference was that small and young firms do face the same constraints in leasing as obtained in the general credit market. The higher the cost of asset acquisition to already financially constrained firms, the higher the tendency to lease but where there is significant information asymmetry, the lowerthe chances are of procuring lease finance. The study may have been biased in using only a sample of small firms to assess the effect of firm size on leasing. Conclusions on information asymmetry in terms of sizewould have been valid had larger firms been allowed for in the sample as older firms were, for firm age. The

study could also haveextended investigation beyond a single year given thatthe choice of such time was not justified.

Lasfer and Levis (1998) examined the finance leasing decision of 3008 quoted and unquoted companiesin the United Kingdom over the period 1982-1996. Univariate and Logit regressions were employed to establish that companies leasing tend to have tax losses, significant fixed capital investment, high leverage levels, and are larger in size than companies that do not use leasing. It was also found that for large companies, profitability, leverage and tax position are positively correlated with leasing. Small companies on the other hand lease in the instance of growth opportunities (identifiable by the presence of a high measure of Tobin's q) and low profitability.

In China, Li (2014) employed Logistic and Generalised Least Square regressions on a sample of 1,400 listed firms for the period 2003-2012. Besides size, cost of capital and information asymmetrywere found to be positively and significantly related to the leasing decision but no correlation was established for growth and bankruptcy costs. The consistent negative market return over the period of the study would have caused a bias in the estimated relationship between cost of capital and leasing for lack of variability.

Erickson and Trevino (1994) investigated as one of their objectives, the determinants of finance leasing in the airline industry using a sample from the 1990 Compustat database for the period 1985-1990. The regression analysis found growth in terms of assets to be positively related to leasing but negatively in terms of sales. Leasing was found to be statistically insignificant in relation to profitability but significantly and negatively related to non-debt tax shields. The definition of non-debt tax shields to be depreciation, amortisation, investment tax credits and tax loss carried forward suggest higher cash flows and thus, littlejustification for leasing. Probability of financial distress (Altman Z-score) was identified

as being positively(negatively) and statistically significant in determining finance leasing. The restriction of the study to a single industry based on asset specificity is contestable as any form of asset even general purpose can be finance-leased.

Controlling for industry, time and country differences, Mendes (2015) assessed the effect of investment opportunity set, profitability, bankruptcy potential, asset specificity, size and availability of collateral (tangibility) on procurement of finance leases by a sample of firms listed on the Bloomberg European 500 Index. The sample covered several European countries and varying industries over the period 2000-2013. On application of Ordinary Least Square and Tobit regressions, results obtained showed leasing to be negatively related with firm size, profitability, financial condition (i.e. positively with financial distress), availability of collateral and asset specificity, whereas a positive association was found with firms' investment opportunity set. Significant relationships were likewise established for all explanatory and control variables except for availability of collateral and investment opportunity.The examination of asset specificity is deemed irrelevant as earlier stressed. For asset tangibility, the presence of collateral is not critical to contracting of finance leases.

The study further examined the influence of leverage on leasing in line with Mehran, Taggart and Yermack (1999) that posited leasing to be dependent on overall leverage. Higher levels of firm debt was concluded to be associated with lower levels of leasing thus confirming the substitutability of finance leases and debt as established in the literature (Myers, Dill & Bautista, 1976; Lewellen, Long & McConnell,1976; Miller & Upton, 1976; Franks & Hodges, 1978; Adedeji & Stapleton, 1996;Deloof & Verschueren, 1999;Kang & Long, 2001 and Mendes, 2015). A recent study by Bialek-Jaworska and Nehrebecka (2016) using System GMMarrived at the same finding by focusing on the dependence between finance leases and long term bank loans in Polish enterprises. In addition,examinedwas the effect of

laggedvalues of the finance lease ratio whose negative impact suggestedits instability in the capital structure of sampled firms.This may be due to a threshold percentage of assets strategized to be financed through leasing and which may cause adjustment of lease levels appropriately.

The work of Ang and Peterson (1984) can also be situated in the lease-debt substitutability or complementary investigation. Focusing on finance leases, the study employed Tobit regression on data for the period 1976-1981 of a sample of firms in the United States. However, finance lease was found to be positively and significantly related with leverage levels (complementary). The abnormality of the finding is what gave rise to the 'leasing puzzle'.Thishas been explained as causedby possible inefficiencies in debt and pseudo-debt markets.

It can be observed that for all firm attributes of profitability, growth opportunities, information asymmetry, agency costs, financial distress/probability of bankruptcy and leverage, the findings of the studies reviewed above differ. There is yet to be a documentation of the direction and significance of correlation with finance leasing, using firms listed in Nigeria. The methodologies of the studies with the exception of Bialek-Jaworska and Nehrebecka (2016), have also not considered the use of a dynamic panel assuming the variable, finance leases to be autoregressive. The use of System Generalised Method of Moments (System GMM) in the referred study holds due to the large sample (50, 000 companies) obtained and which may not be the case in the Nigerian context. This necessitated the consideration of the Bootstrap-based fixed-effects regression suggested by De Vos, Everaert and Ruyssen (2015)for small samples and used in the study.

2.5 Theoretical Framework

The theories that are deemed relevant in anchoring the study arethe Agency cost, Pecking order and Bankruptcy cost theories situated in the broader context of the theory of financial contracting. Mungami (2013) viewed this as focusing on the market imperfections that influence which capital structure firms adopt. The three theories can be attributed to the presence of such imperfections as agency costs, information asymmetry and costs of bankruptcy. Ezzell and Vora (2001) posited that bankruptcy costs and information asymmetrywill typically result in varying costs for different forms of finance. The same can be said of agency costs withtheconsequencebeingthat contracting firms will have to base their choices or financing decisions on the costs of available capital (Chen & Jiang, 2001).

2.5.1 Agency Cost Theory

According to Jensen and Meckling (1976), the separation of ownership and control of corporations creates a principal–agent relationship between the owners (shareholders) and those entrusted with running the affairs of the entity (managers). The relationship between these two parties is prone to problems arising from the misalignment of interests whereby managers engage in activities that maximise their utility to the detriment of the value of firms. The costs associated with agency problems are referred to as agency costs. Jensen and Meckling (1976) further opined that the capital structure of firms influences the relationships between shareholders, managers and debt/bond holders.

The contribution of equity financing by shareholders may culminate in management having free cash flow and thus a negative incentive to engage in sub-optimal investments that can undermine the value of a firm. Grossman and Hart (1982) posited the nature of realignment of shareholder and manager interests being in form of securing leverage. Debt is deemed to constrain the free cash flow by committing the firm to fixed payments in amortising the interest and principal portions of the obligations. According to Lasfer and Levis (1998), leasing can control agency cost of equity asides management compensation or directors'

shareholding. Being a financing decision that contracts an entity to make regular lease payments inclusive of interest, it mitigates the free cash flow problem of equity financing just as debt would.

The consequent incentive to maximise value can equally cause problems for the debt holders referred to as the agency cost of debt financing. Myers (1977) identified thisin the form of asset substitution arising from finance meant for a particular project being used to pursue riskier investments characterised by high returns. The recognition of this substitution risk by the debt holders leads to a demand for increased required return in form of high interest rates/cost of debt.This has the potential of constraining future financing for firms and hampering the engagement in positive net present value investments- otherwise referred to as the underinvestment problem (Zhou, 2014).

According to Jackson and Kronman (1979), Smith and Warner (1979), Robicheaux, Fu and Ligon (2008), agency costs of debt can be controlled through various means that include; debt contract structuring, contracting of short-term debt maturity, use of debt covenants, convertible debt, and lease financing. Smith and Wakeman (1985) opined that finance leases which are long term and non-cancellable, minimise agency costs. This is evident in the sense that as financing is illiquid/ non-current asset- based, the lessee is committed to use the asset for the period of the lease in addition to the fact that legal ownership of such an asset is preserved with the lessor thus, mitigating asset substitution (Lobez, De Bodt & Filareto, 2001).

Mehran, Taggart and Yermack (1999), Robicheaux, Fu and Ligon (2008) and Brage and Eckerstom (2009) provided evidence for the complementarities between corporate governance mechanisms such as directors' shareholding and agency cost of debt minimising

capital structures. This is on the presumption that the alignment of shareholder-manager interests may not prevent the shift or generation of agency costs for the debt holders.

2.5.2 Pecking Order Theory

The Pecking Order theory can be traced to Donaldson (1961) and proposes that management of firms in determining finance strategytend to follow a hierarchical order of preference for retained earnings over debt and debt over equity. The dividend policy adopted by firms with regards to distribution and retention of portions of earnings is said to reflect the need for funding sources for investments (Donaldson, 1961). Myers and Majluf (1984) alsoattributed thisscale of preference to the presence of information asymmetry; a situation whereby the insiders, management, possess superior information than the outside, less informed investors.

Information asymmetry leads to adverse selection and moral hazard where the imbalance in availability of information causes potentially risky investments by unsuspecting outsiders above tolerance levels, and the pursuance of riskier investments by management subsequent to finance procurement. Myers and Majluf (1984) contended that investors in mitigating the costs of information asymmetry tend to discount prices of existing and new share issues by management on the presumption that they are overpriced. This makes equity costly and forces the firm to follow an order of financing internally before progressing through safer, cheaper external sources with equity as a last resort.

Erickson and Trevino (1994) found that in the pecking order and for firms with similar profitability and growth, leases and debt are substitutes and can be supported by the nature of priority that is accorded both over other forms of external financing. Myers and Majluf (1984) suggested that leasing minimises costs associated with adverse selection.It also presents a cheaper source of finance than debt for firms with high information asymmetry

(Ezzell & Vora, 2001). Chau, Firth and Srinidhi (2006) likewise opined that lease agreements with a purchase option (finance leases) can eliminate the moral hazard problem.

The use of debt financing in pecking orderdepends on investment or growth opportunity sets and level of profitability particularly where these investments exceed retained earnings (Myers & Majluf, 1984).Internal reserves are equally dependent on the level of profitability and dividend policy of firms. Fama and French (2002) further explained that expected future investmentsmotivate firms to maintain low-risk debt structures (such as leases) in order to ensure favourable low costs of external funds in the absence of internal finance.This will lead to the avoidance of underinvestment.

2.5.3 Bankruptcy Cost Theory

In recognition of the assertion by Jensen and Meckling (1976) that agency costs of debt couldlead to bankruptcy from the pursuit of high risk investments, Zhou (2014) proposed leasing to surpass secured debt as itavails the lessor with greater priority in settlement over a secured lender. Krishnan and Moyer (1994) also stated the ease in repossession of the leased asset as against collaterals in regular debt financing thus, lowering bankruptcy costs for the lessor.

According to Neuberger and Rathke-Doppner (2012), the repossession ability by lessors preserves the debt capacity of lessees making lease attractive for financially distressed and debt constrained firms.Lease rates are more likely to be lower than costs of debtand the problem of underinvestment can be overcome (Stulz & Johnson, 1985; Rampini & Viswanathan, 2013). In a differing perspective, Kang & Long (2001) and Mendes(2015), contended that leasing in fact, affects the debt capacity of firms and is a substitute to debt being long term fixed contractual obligations to make periodic payments amortising the

capitalised liabilities. Leasing therefore, contributes just as much to the risk of bankruptcy and its inherent costs for lessees.

Contrary to the assertion by Rampini and Viswanathan (2013) on lease rates, Eisfeldt and Rampini (2009) highlighted thatagency problems could likewise arise between the lessor and lessee from separation of ownership and control of assets. This is in form of moral hazardous activities with regards asset use,affecting lease rates negatively for the lessee. Brage and Eckerstom (2009) further acknowledged the complexity of lease contracts; cancellation penalties, negotiation costs of disposing leased assets and loss of operational mobility in diversifying asset base for finance leases which in aggregate, could surpass any gain associated with lower bankruptcy costs to the lessor.

CHAPTERTHREE
RESEARCH METHODOLOGY

3.1 Introduction

Thechapter presents the research design of the study informing about the approach towards achieving set objectives.The population and sample of listed non-financial firms are defined as well as the source and method of data collection.Specification of variables andmeasurements are given as well as the model used for the study. Elaboration is equally made on the technique of data analysis employedand thenecessary robustness tests conducted to ensure validity of inferences.

3.2 Research Design

The study is anchored on a correlation research design using panel data of a multiple number of firms, over a period of time. Correlation research design is a type of quantitative research strategy that conforms to the positivist paradigm centred on empiricism and objectivity (Anderson & Arsenault, 1998 as cited in Asamoah, 2014). Works conducted on this premise are alsotermed association researches due to the absence of manipulation and focus on the relationship between aset of quantitative variables (Asamoah, 2014). Assessment of statistical association between attributes of listed non-financial firms and finance leasing is made through six independent variables with two controls, tested against a single dependent variable.

3.3 Population and Sample

The population of the study is defined as the aggregate of non-financial firms listed on the Nigerian Stock Exchange as at 31st December, 2015andwhich amounts to 128. The study used a filter where only those companies with a history of lease obligations reported in the Statement of Financial Position from 2007 to 2015were selected. The modified population also corresponding to the sample is 14 listed non-financial firms.

3.4 Source and Method of Data Collection

The study utilised secondary data extracted from the audited annual reports and accounts of the firms for the years 2007-2015.Secondary data is factual and verifiable thus, validity of inferences from its use in analysis isensured. Data relating to profitability, growth opportunities, information asymmetry, financial distress, agency costs, leverage and finance leases was sourced from the main financial accounts- the income statement and statement of financial position. The adoption of either IFRS or the Nigerian Generally Accepted Accounting Principles (NGAAP) was inferred from the reporting standards stated to have been complied with in thefinancial statements.

3.5 Technique of Data Analysis

The study adopted a combination of descriptive and inferential statistics in analysing data. The descriptive statistics inform aboutthe minimum, average and maximum of observable values as well as the extent of deviation from the mean. The inferential statistical analysis first involved the use of the Ordinary Least Square Technique as in Kang and Long (2001), Robicheaux, Fu and Ligon (2008) and Mendes (2015) and subsequent running of a Fixed-effects regression due to the existence of panel effects confirmed by the Hausman Specification test. Given the nature of the model- a dynamic panel, the consistency of its estimationswas furthersecuredby Bootstrapping which corrects for heteroscedasticity, cross sectional dependence patterns and is suitable for any range of‘n’ and‘t’ thus, eliminating dynamic panel bias.

Bootstrappingdefines the sample as a population from which sub-samples of a particular size ‘N’, are repeatedly drawn (by sampling with replacement) and for which statistics are computed a significant number of times, ‘B’. The re-sampling scheme improves standard error estimations and rectifies any inherent bias (Sarzoza, 2012). The System GMM, a

technique that could also be usedto estimate dynamic panel models has been considered inappropriate given its poor small sample properties (De Vos, Everaert &Ruyssen, 2015).Robustness tests formulti-collinearity were conducted to ensure reliability of results.Inferences as to the significance of association between the independent and dependent variables were made on p-values lower than the acceptable levelsof significance given by 1%, 5% and 10%.All analysis was done using the statistical software, STATA 13.

3.6 Variable Measurement and Model Specification

The independent variables of the study comprise profitability, growth opportunities, information asymmetry, financial distress, agency cost and leverage which are defined as operating profit; market to book value ratio of ordinary shares; size of firms; Altman z-score; percentage of directors' shareholding and; debt to equity ratio respectively. For the dependent variable, finance lease is defined by itsproportion to total assets. The course of investigation of the relationship between these variables requires controlling for two issues. First, the past use of lease financing may affect the current decision to lease. This is in cognizance of the proposition of the trade-off theory that firms use debt for tax benefits against the increased likelihood of bankruptcy (Modigliani & Miller, 1963; Kraus & Litzenberger, 1973). Lease being a debt-like finance, entails tax savings which may propel its continued or increased use. In contrast, it is equally probable that these firms have target lease levels they seek to maintain in consonance with the overall debt ratio for the minimisation of bankruptcy risks. Statistically, the assumption that the past determines the present is termed autoregression and represented by the use of lagged values of the variable defined as autoregressive (Gujarati, 2003). Secondly, the change in financial reporting with the mandatory adoption of the International Financial Reporting Standards (IFRS) from 2012 by listed corporate entities in Nigeria may cause significant variation in the reported values for the variables of interest

(firm-specific attributes and finance leasing) compared to what would have obtained with the use of the NGAAP. Measurements are presentedin table 3.1:

Table 3.1: Summary of Variables and Measurement

Variable	Measurement	Sources
Dependent:		
Finance Leases	Ratio of Long term lease obligations to Total Assets	Modified construct of measure used in Lasfer and Levis (1998), Kang and Long (2001)
Independent:		
Profitability	Ratio of Earnings before Interest, Taxes, Depreciation and Amortisation (EBITDA) to Sales/ Turnover	Ang and Peterson (1984), Deloof and Verschueren (1999), Kang and Long (2001)
Growth Opportunities	Ratio of Market to Book Value of Ordinary shares	Lasfer and Levis (1998), Callimaci, Fortin and Landry, (2011), Malik, Saeed, Ahmed and Javed (2012), Mungami (2013)
Information Asymmetry (Size)	Log of Sales/Turnover	Adams and Hardwick (1998), Callimaci, Fortin and Landry (2011), Mungami (2013)
Financial Distress	Altman Z-score	Erickson and Trevino (1994), Brage and Eckerstom (2009), Mendes (2015)
Agency costs	Percentage of shares held by Directors out of total outstanding shares in issue	Modified construct of measure used in Mehran, Taggart and Yermack, (1999), Robicheaux, Fu and Ligon, (2008) and Mungami (2013)
Leverage	Ratio of Non-current Debt (excluding lease liabilities) to Equity	Modified construct of measure used in Filareto-Deghaye and Severin (2007)
Control:		
IFRS Adoption	Dummy variable of 0 and 1 for non-adoption and otherwise	Innovation of Study
Finance Leases (AR 1 and AR 2)	First lagged value (t-1)	Bialek-Jaworska and Nehrebecka (2016)
	Second lagged value (t-2)	Innovation of Study

Source: Researcher's Construction, 2016

Model Specification

The model for the study is a panel regression equation differing from the regular time-series or cross section regression by the double subscript ($_{it}$) attached to each variable. The general form of the panel data model is specified as:

$$Y_{it} = \beta_{0it+} \beta_1 X_{1it} + \beta_2 X_{2it} + \ldots . \beta_n X_{nit} + \varepsilon_{it}$$

The subscript'i' denotes the cross-sectional dimension and 't',the time-series dimension. Y_{it} represents the dependent variablewhile $X_{1\ldots}X_{nit}$ refers to the set of explanatory variables in the regression model. $\beta_{0it}$is definedas the constant over time 't', unique to each individual cross-sectional unit 'i' with $\beta_{1\ldots\ldots}\beta_n$, the coefficients to be estimated. 'ε_{it}' is the error term which encompasses all other relevant independent variables not explicitly stated in the model.

The dependent variable (Y_{it}) assumed to be auto-regressive,necessitatedthe introduction of an endogenous regressor in form of a lagged value of $Y_{it.}$This treatment is consistent with those of contemporary studies on capital structure (Lemma &Negash, 2013; Gill, 2014; Etudaiye-Muhtar & Ahmad, 2014) and finance leases (Bialek-Jaworska & Nehrebecka, 2016).For the purpose of the study, two lagged values were used to enhance analysis.This is represented in the final equation expressly stated as;

$$\begin{aligned} FINL_{it} = {} & \beta_{0it} + \beta_1 PROF_{it} + \beta_2 GROWTHOPP_{it} + \beta_3 INFASYM_{it} + \beta_4 FIND_{it} \\ & + \beta_5 AGENCY_{it} + \beta_6 LEV_{it} + \beta_7 IFRSADP_{it} + \beta_8 FINL - AR1_{i,t-1} \\ & + \beta_9 FINL - AR2_{i,t-2} + \varepsilon_{it} \end{aligned}$$

Where:

FINL= Finance Lease

PROF= Profitability

GROWTH OPP= Growth Opportunities

INFASYM= Information Asymmetry

FIND= Financial Distress

AGENCY= Agency Cost

LEV= Leverage

IFRSADP= IFRS Adoption

FINL-AR1=First lagged value of the dependent variable

FINL-AR2=Second lagged value of the dependent variable

it= Subscript denoting firm and time point

β0= Constant term

β1 – β9= Coefficients for estimation

ε_{it}**=** Residual or Error term

3.7 Robustness Tests

Tests for multi-collinearitywere conducted through the computation of Variance Inflation Factor (VIF) and Tolerance Valueswith the software, STATA 13. Multicollinearity is a condition in which the independent variables can linearly predict each other such that the true relationship between an independent variable and the dependent is obscured thus, invalidating inferences for the individual variables. VIF less than 10and Tolerance values greater than 0.1,indicate negligible multi-collinearity (Chatterjee & Price,1991). The result of the Hausman Specification test favouring the use of a Fixed-effects regressionrequires the conduct of a test for heteroscedasticity. However, the report of Bootstrap standard errors makes it unnecessary as it corrects for any heteroscedasticity present.

CHAPTER FOUR
DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

The chapter presents descriptive statistics explaining the characteristics of the sample in terms of the data. The correlation matrix and regression results comprising information as to the relationship between the variables as well as the estimated coefficients of the model are provided. These aid the test of hypotheses and drawing of inferences.Discussion is also made of the robustness tests conducted in order to secure validity of the results herein reported.

4.2 Descriptive Statistics

The data used for the study is described in terms of the minimum, maximum, mean, standard deviation and number of observations. This is summarily presented in table 4.1:

Table 4.1 Descriptive Statistics of Study Variables

Variable	Observations	Mean	Std. Dev.	Minimum	Maximum
FINL	123	1.068293	2.841981	0	25.47
PROF	123	10.08065	15.13842	-35.23	83.14
LEV	123	53.55569	76.8266	-540.33	255.09
FIND	123	1.781626	1.377573	-2.14	7.56
AGENCY	123	18.22398	23.07653	0	84.44
GROWTHOPP	123	2.462764	5.283962	-18.03	33.42
INFASYM	123	6.526585	.8033126	4.97	8.38
FINL-AR1	122	1.072131	2.853381	0	25.47
FINL-AR2	121	1.076033	2.864918	0	25.47
IFRSADP	125	.536	.5007092	0	1

Minimum and Maximum figures are in percentages excluding 'FIND', 'INFASYM' and 'IFRSADP'.

Source: STATA 13 Output (Appendix)

The number of observations from the table ranges between 121 and 125. This is due to the nature of the panel data having unavailable inputs for some years, which makes it unbalanced. 'FINL' describes finance lease which accounts for an average of 1% of total assets across the firms. The minimum and maximum proportions of total assets so financed

are 0 and 25% respectively. These values suggest the rarity or uniqueness of leasing in the capital structure of listed non-financial firms. The pattern likewise influences the descriptive for lagged values of 'FINL' defined by 'FINL-AR1' and 'FINL-AR2'.

Profitability defined by 'PROF' is at an average 10% of sales. The minimum value of -35% which is obtainable, can be interpreted as the extent of loss recorded in the sample of firms. The maximum profit of 83% suggests either impressive operating efficiency or income generation. The wide range between these extreme values further confirms the tendency of profit to be volatile. As for logged values of sales, a measure of firm size to represent Information Asymmetry, 'INFASYM', the minimum, mean and maximum are 4.97, 6.52 and 8.38. The actual figures show that salesranges between ₦94, 027 and ₦240, 618, 693.

The acronym 'LEV' stands for leverage excluding lease obligations, the mean being 0.53 times of equity,the maximum value of 2.55 implying that some companies are significantly financed by non-current debt compared to equity- the preference of firms for debt over equity (given the tax shields) in line with the pecking order theory. Negative minimum value is due to observation of negative equity in the sample.'GROWTHOPP' has a maximum of 0.33 with a mean of 0.02.

'FIND' representing financial distress or the probability of bankruptcy and measured by the Altman Z-score, has for the minimum, average and maximum, values of -2.14, 1.78 and 7.56. It is a computed composite of financial ratios inclusive of profitability and leverage. Scores lower than 1.8 for the Z-score are indicative of financial distress and a high risk of bankruptcy. An Altman Z score less than 0 can be attributed to firms reporting lossesor a negative working capital due to the excess of current liabilities over current assets.

Agency costs, 'AGENCY', measured by Directors' shareholding, has a maximum of 84% due to the prevalence of the non-executive directors having interests in the firms besides the

executives. In some cases, the non-executive directors are seen to have investments greater than that of the executives. These holdings are taken into account because they constitute a ground for agency costs with the creation and alignment of interests particularly for those who are expected to be independent of the firms for income other than fees and allowances. The Private Sector Code of Corporate Governance (2016) issued by the Financial Reporting Council of Nigeria (FRCN), requires non-executive directors to be independent and non-substantial shareholders. The minimum and average values of these shareholdings are 0 and 18% respectively. Dummy values for the adoption of IFRS, 'IFRSADP', can only have a maximum of 1 and minimum of 0.

4.3 Correlation Matrix

Table 4.2 reveals the relationship between the independent variables.

Table 4.2 Correlation Matrix of Study Variables

	Prof	Lev	Find	Agency	Growth	Infasym	F-ar1	F-ar2	Ifrsad
Prof	1.00								
Lev	0.03	1.00							
Find	0.29*****	0.07	1.00						
Agency	0.20*****	0.00	0.04	1.00					
Growth	0.21*****	0.25*****	0.40*****	-0.14	1.00				
Infasym	0.21*****	0.04	0.55*****	0.07	0.15	1.00			
F-ar1	0.04	-.27*****	-0.08	0.13	-0.15	0.01	1.00		
F-ar2	-0.08	-0.05	-0.08	0.16	0.04	0.09	0.52*****	1.00	
Ifrsad	0.24*****	0.10	-0.01	0.05	-0.13	0.12	0.09	0.07	1.00

Source: STATA Output (Appendix)

*Asterisked figures are significant at either 1% or 5%.

Examining the relationship between the independent variables, it can be observed that even though significant correlations do obtain as asterisked in the table, the magnitude of the coefficient is less than 0.80 in all cases implying the absence of problematic multi-collinearity(Gujarati, 2003). For each of the independent variables (IV), the individual Variance Inflation Factor (VIF) and Tolerance Value (TV) are shown in table 4.3:

Table 4.3 Variance Inflation Factor and Tolerance Value of Independent Variables

Independent Variable	Variance Inflation Factor	Tolerance Value
PROF	1.35	0.74
LEV	1.18	0.84
FIND	1.71	0.58
AGENCY	1.16	0.86
GROWTH OPP	1.46	0.68
INFASYM	1.48	0.68
FINL-AR1	1.35	0.74
FINL-AR2	1.27	0.79
IFRSADP	1.17	0.85

Mean VIF- 1.35

Source: STATA Output (Appendix)

These values are consistently less than 10 for VIF and greater than 0.1 for TV respectively; supporting the earlier assertion of absence of multi-collinearity. The Mean or overall VIF of the independent variables correspondingly is 1.35.

4.4 Regression Results

Table 4.4 presents the estimations of a Bootstrap-based fixed effects regression in relation to the model of the study. The report of fixed effects instead of pooled OLS results is justified based on the nature of data being panel. This led to the conduct of the Hausman specification test with a p-value for chi2 of 0.0717 (see appendix) confirming the inappropriateness of a random effects regression. Subsequently, bias correction in the dynamic panel was done by the report of bootstrap standard errors. The table shows for each independent variable, the coefficient indicating the magnitude and direction of relationship with the dependent variable. The significance of the association can be inferred from the p-values also provided.

Table 4.4 Regression Results

Variable	Coefficient	Bootstrap Std.Errors	Z-Statistics	P > {z}
_CONS.	20.30746	21.82198	0.93	0.352
PROF	-.0023808	.0172163	-0.14	0.890
LEV	-.0151952	.0074366	-2.04	0.041
FIND	-.0320406	.260558	-0.12	0.902
AGENCY	.0047019	.0272868	0.17	0.863
GROWTHOPP	.0713011	.0694511	1.03	0.305
INFASYM	-3.101861	3.471266	-0.89	0.372
FINL-AR1	.6902083	.396943	1.74	0.082
FINL-AR2	-.2789722	.1907864	-1.46	0.144
IFRSADP	1.426515	1.200275	1.19	0.235

R^2 (within) -0.5055

Wald chi2 (9) - 23.33

Prob > chi2 - 0.0055

Source: STATA Output (Appendix)

The multiple coefficient of determination (R^2) informs about the percentage of variation in the dependent variable accounted for by the independent variables as a whole. From the result in table 4.4, 50.55% of variation in finance lease obligations of listed non-financial firms in Nigeria is accounted for by profitability, leverage, financial distress, agency costs, growth opportunities, information asymmetry, lagged values of finance lease and the adoption of IFRS. 49.45% of the variation can be inferred as caused by other factors outside the model.The significance or otherwise of the individual variables in explaining finance lease is used to test the hypotheses of the study in section 4.5.The Wald chi2 statistic of 23.33 with significance at 1% indicates the proper selection and combination of the explanatory variables which makes the model fit to have been used for estimation.

4.5 Hypotheses Testing and Discussion

The six hypotheses formulated for the study are hereby tested and implications discussed with reference to the information in table 4.4. Null hypotheses are rejected at p-values less

than the levels of significance- 1%, 5% and 10%. It is worth noting that the adoption of IFRS has been found not to significantly affect the values of the variables as used in the study. Its purpose as a control in the model was to ensure the avoidance of spurious estimations of the relationship between the explanatory and outcome variables due to its application.

4.5.1 Hypothesis 1

H0 Profitability has no significant effect on finance leasing by listednon-financial firms in Nigeria.

Profitability can be inferred to be negatively but insignificantly correlated with finance lease use. A naira increase in profit has an effect of reducing the level of finance lease by -0.0023 although not significantly at a p-value of 0.890. The negative relationship conforms to the expectation that firms would abide by the proposition of the pecking order theory- preferring to first utilize internal sources of finance (such as reserves) for investments before seeking external funding through debt (either conventional or leases). Similar findings were obtained by Erickson and Trevino (1994), Kang and Long (2001), Brage and Eckerstom (2009) and Mendes (2015) but a contradiction prevails in relation to the finding of Lasfer and Levis (1998), which was positive. The lack of significance in correlation at all levels has equally been reported by Erickson and Trevino (1994). In line with the results, evidence is provided for the non-rejection of the hypothesis.

4.5.2 Hypothesis 2

H0 Growth opportunities have no significant effect on finance leasing by listed non-financial firms in Nigeria.

Growth can be seen to be positively but insignificantly related to the use of finance lease with a coefficient of 0.0713 and a p-value of 0.305. Anincrease in growth prospects of a firm will increase its need for finance. Leasing improves the liquidity position and by extension,

internal finance of firms through cash conservation. It as well,cushions against agency costs in form asset substitution and underinvestment that may obtain with increased growth prospects. The positive relationship found validates the pecking order and agency cost theoriesand is equally corroborated by the following studies;Erickson and Trevino (1994), Lasfer and Levis (1998) and Callimaci, Fortin and Landry (2011).The findings of Malik, Saeed, Ahmed and Javed (2012) and Mungami (2013) however, contradict. Brage and Eckerstom (2009) reported a positive but insignificant relationship as with this study. The hypothesis is consequently not rejected.

4.5.3 Hypothesis 3

H0 Information asymmetryhas no significant effect on finance leasing by listed non-financial firms in Nigeria.

Interpretation for the effect of information asymmetry on finance lease is made in respect of the measure, size, which has an insignificant negative coefficient of -3.1018 (p-value, 0.372). The increase in the size of firms, the lower is expected ofinformation asymmetry as large firms are typically diversified and tend to report significantly on scale of operations. Rajan and Zingales (1995) also posit that for large firms, low information asymmetry should make the raising of equity finance from the capital market feasible thus, reducing the compulsion to follow a pecking order.Small firms present with uncertainty and the risks associated therein constrain them in securing external finance due to high costs of capital. The smaller the firm, the higher the information asymmetry andthe tendency to engage in finance lease. A negative correlation between size and leasing is equivalent to a positive correlation between information asymmetry and finance lease use as found in the works of Sharpe and Nguyen (1995), Eisfeldt and Rampini (2009), Malik, Saeed, Ahmed and Javed (2012), Mungami (2013) and Li (2014). The finding which is in line with the pecking order theory,

however,does not conform to that of Neuberger and Rathke-Doppner(2012). The insignificance of the coefficient estimated, leads to the non-rejection of the hypothesis.

4.5.4 Hypothesis 4

H0 Financial Distress has no significant effect on finance leasing by listed non-financial firms in Nigeria.

The Altman Z-score is a measure of financial distress and the consequent probability of a firm filing for bankruptcy. Lower scores indicate a financially distressed firm which would be severely impaired in accessing external finance. As reviewed in the literature, for these firms, leasing is expected to be a last resort with ease of contracting. This is due to the lessor being accorded priority in claims and an ability to repossess the asset at lower costs than a secured lender of conventional debt in the event of a default.The results reveal that the measure,Altman Z for financial distress, has a negative correlation with finance lease given a coefficient of -0.0320 but insignificant at a p-value of 0.902. This translates to a positive (though insignificant) relationship between financial distress and finance lease validating proposition in the literature. The finding is in line with the bankruptcy cost theory and similar to that achieved by Erickson and Trevino (1994), Filareto-Deghaye and Severin (2007), Brage and Eckerstom (2009) and Mendes (2015) excluding Li (2014). The lack of significance of effect though,provides groundfor the hypothesis not being rejected.

4.5.5 Hypothesis 5

H0 Agency cost has no significant effect on finance leasing by listed non-financial firms in Nigeria.

Agency cost measured by directors' shareholding has a positive but insignificant relationship with finance lease- coefficient 0.0047 and p-value, 0.863. The increase in shareholding of members of the Board (Executive and non-executive), the more aligned their interests with

shareholders which could present an agency cost to existing and potential debt holders. Finance lease is propositioned as an agency cost reducing debt structure which should complement agency cost of equity mitigating systems. This is the basis for the positive relationship expected, and obtained, validating the agency cost theory as in the works of Mehran, Taggart and Yermack (1999), Robicheaux, Fu and Ligon (2008), Brage and Eckerstom (2009) and Mungami (2013) with the exception of Munga and Ayuma (2015). The insignificance affirms the non-rejection of the hypothesis as agency cost is not a strong explanation for the use of finance lease in the Nigerian context.

4.5.6 Hypothesis 6

H0 Leverage has no significant effect on finance leasing by listed non-financial firms in Nigeria.

With a negative coefficient of -0.0151 and p-value of 0.041 significant at 5%, the degree of debt usage in capital structure influences the use of finance lease. Where debt increases, the tendency to engage in leasing reduces and this could be attributed to the similarity between these means of financing thus, confirming the debt-lease substitutability theory. The result sheds more light on why financial distress though expected to instigate leasing, is not a strong determinant. Firms with a probability for bankruptcy face problems in meeting their interest and principal repayment obligations. Finance leases have similar payment structures as debt and though easier to contract where the need arises, it presents with the same effects worsening the distressed position of a firm. Firms may also shy away from leasing because it increases gearing ratio particularly where there is a threshold set by firms to be maintained or the presence of covenants restricting firms to specific debt levels. Findings are in line with the bankruptcy cost theory as well as the works of Kang and Long (2001) and Mendes (2015) giving impetusfor the rejection of the hypothesis.The studies of Ang and Peterson

(1984),Lasfer and Levis (1998), Filareto-Deghaye and Severin (2007), Eisfeldt and Rampini (2009) and Malik, Saeed, Ahmed and Javed (2012), however, contradict.

The lagged value 'FINL-AR1' with a positive coefficient 0.6902 significant at 10% (p-value, 0.082), could be interpreted as the increased likelihood of a firm leasing by the extent to which such form of financing had been used in the past. Firms may engage in leasing if it haspreviously proved beneficial. One possibility is the tax reliefs obtainable in both capital allowances and tax deductible expense on finance charges and asset use.The negative correlation for 'FINL-AR2' although insignificant, may explain based on the direction, that even with the probability of leasing in these firms, a threshold could be obtainable which is notto be exceeded. Lease levels may therefore be adjusted and kept within a range in order to minimise overall gearing and risk of bankruptcy. This is similar(in terms of direction of relationship) to the significant finding of Bialek-Jaworska and Nehrebecka (2016) which concluded on the instability of finance lease in the capital structure of firms. The influence of both lagged values on leasing can also be inferred as subject to leverage levels. A study examining the effect of the tax position on finance leasing can further confirm these findingsin line with the trade-off theory.

4.6 Policy Implication of Findings

The significant negative effect that leverage has on the use of finance lease by listed non-financial firms in Nigeria has an implication for the marketing policy of leasing businesses. A consequent re-direction in policy will have as target market, listed non-financial firms particular about the maintenance of low-risk debt structures and which can be obtained through the use of finance lease. The suggestedsubstitutability between the use of conventional debt and finance lease necessitates institution of policies by regulatory bodies such as the Central Bank of Nigeria (CBN), Finance Houses Association of Nigeria (FHAN)

and Equipment Leasing Association of Nigeria (ELAN) which will secure the competitiveness of leasing businesses alongside other financial institutions.

Findings in relation to agency costsrequire firm policy on corporate governance be broadened to account for that of debt/bond holders; the case being that, capital structure of firms creates a network of interrelationships between shareholders, managers and debt financiers with misaligned interests.Current policy primarily focuses on the protection of shareholders' interest with less emphasis on other stakeholders. Finance lease can be a means to mitigate agency costs of debt that arise from corporate governance mechanismsaimed at minimising agency costs of equity.

In line withfindings on information asymmetry, profitability and growth opportunities, the finance policy of small, profitable and growing listed non-financial firms in Nigeria requires inclusion of finance leasing givenitspotential contribution towards maintenance of reserves and improvement in liquidity for the pursuit of viable investments. Correspondingly, same financepolicy is required forfinancially distressed firms who through sale-leaseback transactionson non-collaterised assets can enhance solvency and operations by the re-investment of funds.

CHAPTER FIVE
SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

The importance of leasing as a source of finance for tangible asset investments cannot be undermined given its significant contribution to capital formation in the Nigerian economy. For corporate entities, theoretical expositions have extensively acknowledged the nature and use of finance leasing in capital structure. Despite this, the reality is thatfinancing is largely biased towards MSMEs giving cause for inference that leasing may not be predominant in the corporate sector especially by listedfirms having access to the capital and money markets.

Consequently, there arose a motivation to determine in those listed companies found to be leasing,what firm attributes influence its usegiven the dearth of empirical studies in Nigeria and the inconsistencies in findings of foreign researches. Being that the leasing industry is in a continuous quest for growth to meet up with that of developed economies, focus of local studies has mostly been on marketing strategies. The findings of the research undertaken are expected to inform these strategies of leasing businesses towards penetration in the corporate sector as well as contribute to the body of literature on the subject matter.

The study focused on 14 listed non-financial firms on the Nigerian Stock Exchange (NSE) over the period 2007-2015 examining the significance of profitability, growth opportunities, information asymmetry, financial distress, agency cost and leverage in relation to finance leasing. The concept of lease has been reviewed as well as the aforementioned firm attributes of interest to the studyclearly defining and synthesising the theoretical relationship. Empirical studies were analysed in order to chart out a suitable direction for the research that will lead to the attainment of its objective. The agency cost, pecking order and bankruptcy cost theories constituted the theoretical framework and were explained in the context of finance leasing and firm attributes.

With the aid of aBootstrap-based fixed effects regression, controlling for the adoption of IFRS and the possibility of past lease use influencing the present, the study found positive correlations with leasing for agencycosts, growth opportunities, financial distress, information asymmetry and past lease use.Increase in shareholdings of the executive and non-executive directors while aligning principal- shareholder interests, creates grounds for the agency costs of debt to which leasing can be a mitigating finance option. Growth opportunities would necessitate finance that may be beyond the capacity of internal sources and can also present with agency conflicts aforementioned to be avoided with leasing.

Firms with high information asymmetry could lease because they are constrained in accessing funds from investors and financial institutions. The probability of bankruptcy further makes it difficult but leasing could be contracted because lessors face lower bankruptcy costs with title to, and ease in repossession of leased assets. Firms are more likely to lease if it is has been employed in the past and deemed advantageous. The positive correlations explained, provide insight into what instigates finance lease use irrespective of the insignificancerecorded by the study.

A negative relationship was established for profitability and leverage. Profitable firms have reserves that would reduce the need for external financing of which leasing is one. As for leverage, the lone significant explanatory firm attribute, an increase in the incidence of debt minimises the use of finance leasing probably due to similarities between the two in terms of contractual obligations and effect on the gearing levels of firms. This finding confirms the debt-lease substitutability proposition as found in the literature.

5.2 Conclusion

Finance leasing is significantly determined by the level of debt employed by listed non-financial firms in their capital structure. The evidence suggests that in the Nigerian context,

leasing is a substitute to debt. Being that these firms are listed on the Stock Exchange, issue of conventional debt instruments or financing by money market institutions appears to be the preference(and probably,internal reserves)except where a disadvantage obtains in form of information asymmetry raising the procurable cost of capital. Listed non-financial firms canalso be concluded to not use finance leasing as an agency cost of debt control perhaps, due to the adoption of other means like debt covenants or the issue of convertible loan stock. The availability of growth opportunities and a situation of financial distress may drive firms to engage in leasing by virtue of positive correlation but are concluded due to insignificance, not to be determinants.

5.3 Recommendations

The following recommendations are made in line with the findings of the study:

i. Even though the findings show that profitable listed non-financial firms are less likely to lease, it could help to maintain and complement reserves for business expansion especially in firmswith growth prospects. This is besides the consideration of tax savings that could be exploited. In light of this, leasing businesses are still encouraged in spite of insignificance, to target profitable, growing firms. The same can be recommended with regards to small and distressed firms that may not be engaging significantly in leasing perhaps due to being under-informed of its accessibility and low risk compared to other forms of financing.

ii. Listed non-financial firms with substantial directors' shareholding should consider the potential of leasing in reducing pervasive and problematic agency costs. The lack of significance as an explanatory variable could be due to the use of other means in tackling agency costs such as debt covenants or convertible loan stock which most likely is what obtains in the listed non-financial firms. Debt covenants can discourage

the pursuit of profitable investments due to risk whereas convertible loan stock can result in dilution of shareholding of investors.

iii. The management of leasing businesses should be innovative inraising awareness of the benefits of this form of financing asset acquisition especially to listed non-financial firms in Nigeria. The fact that leasing is negatively influenced by the level of leverage suggests its substitutability with debt and therefore, focus should be on how to steer the patronage of conventional debt towards lease finance.

iv. Listed non-financial firms are encouraged to utilise leasing as a way of maintaining low- risk debt structures.Achieving this will require that strategies be devised towards developing competitive leasing products and arrangements in order to attract them into taking up contracts. Consideration should be given to the quality of assets, affordable interest rates and flexibility ofleasing agreements.

5.4 Limitations of the Study

The study was unable to include the non-listed firms due to the inaccessibility of their financial statements which are not required by law to be published. The lowquality of disclosure on operating leases forestalled its incorporation into investigation by the study and comparison with finance leases.This however, does not affect the validity of methodology and inferences in respect of finance leasing by listed non-financial firms in the corporate sector, due to the delineation of the study.

5.5 Areas for Further Research

The tax position of firms can be explored based on the trade-off theory of capital structure to determine how much it explains the use of finance leasing by firms in the corporate sector.In addition to this, analysis of the variables as used in the study can be extended to the Micro, Small and Medium Scale Enterprises being that they account for the bulk of lease transactions in Nigeria. Researches can also re-examine the influence of the study variables

with the reclassification and capitalisation of all leases as finance in compliance with the recently released IFRS 16 scheduled to be effective from 2019. Studies could equally consider the adoption of a mixed-methods research design irrespective of domain, in order to shed light on finance leasing.

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APPENDIX A

Leasing Firms (Lessees)

1. **A.G. Leventis Nigeria Plc**
2. **Aluminium Extrusion Industries Plc**
3. **Ashaka Cement Plc**
4. **ABC Transport Plc**
5. **Chellarams Plc**
6. **DN Meyer Plc**
7. **Fidson Healthcare Plc**
8. **Livestock Feeds Plc**
9. **Morrison Industries Plc**
10. **Neimeth International Pharmaceuticals Plc**
11. **Pharma-Deko Plc**
12. **Thomas Wyatt Plc**
13. **Total Nigeria Plc**
14. **Vonofoam Plc**

```
 /__    /   ____/   /   ____/
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Notes:
      1.  (/v# option or -set maxvar-) 5000 maximum variables

. *(28 variables, 125 observations pasted into data editor)
(variable named "ind_d9" already exists; using name "var17")

. regress finl prof lev find agency growthopp infasym finlar1 finlar2 ifrsadp
```

Source	SS	df	MS	Number of obs =	119
				F(9, 109) =	10.06
Model	435.750157	9	48.4166842	Prob > F =	0.0000
Residual	524.703122	109	4.81379011	R-squared =	0.4537
				Adj R-squared =	0.4086
Total	960.453279	118	8.13943457	Root MSE =	2.194

finl	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
prof	.0137225	.0153136	0.90	0.372	-.0166286	.0440736
lev	-.0093134	.0024201	-3.85	0.000	-.01411	-.0045168
find	-.1463544	.1973807	-0.74	0.460	-.5375566	.2448478
agency	.0001719	.0093704	0.02	0.985	-.0183999	.0187438
growthopp	-.0123021	.0462217	-0.27	0.791	-.103912	.0793077
infasym	-.4414516	.3127216	-1.41	0.161	-1.061256	.1783526
finlar1	.8072315	.1341456	6.02	0.000	.5413592	1.073104
finlar2	-.2883257	.1389203	-2.08	0.040	-.5636612	-.0129902
ifrsadp	.5626725	.4376242	1.29	0.201	-.3046843	1.430029
_cons	3.568192	1.860222	1.92	0.058	-.118708	7.255091

```
. estat vif
```

Variable	VIF	1/VIF
find	1.71	0.584452
infasym	1.48	0.677804
growthopp	1.46	0.684469
prof	1.35	0.739843
finlar1	1.35	0.743315
finlar2	1.27	0.787729
lev	1.18	0.843941
ifrsadp	1.17	0.852166
agency	1.16	0.858384
Mean VIF	1.35	

```
. hettest

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
         Ho: Constant variance
         Variables: fitted values of finl

         chi2(1)      =   396.88
         Prob > chi2  =   0.0000
```

```
. xtset id fyear
       panel variable:  id (unbalanced)
        time variable:  fyear, 2007 to 2015
                delta:  1 unit

.
. xtreg finl prof lev find agency growthopp infasym finlar1 finlar2 ifrsadp, fe

Fixed-effects (within) regression               Number of obs      =       119
Group variable: id                              Number of groups   =        14

R-sq:  within  = 0.5055                         Obs per group: min =         7
       between = 0.2127                                        avg =       8.5
       overall = 0.2756                                        max =         9

                                                F(9,96)            =     10.90
corr(u_i, Xb)  = -0.7177                        Prob > F           =    0.0000

------------------------------------------------------------------------------
        finl |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        prof |  -.0023808   .0196488    -0.12   0.904    -.0413833    .0366218
         lev |  -.0151952    .002705    -5.62   0.000    -.0205646   -.0098259
        find |  -.0320406   .2819374    -0.11   0.910    -.5916819    .5276008
      agency |   .0047019   .0238371     0.20   0.844    -.0426144    .0520181
   growthopp |   .0713011   .0485733     1.47   0.145    -.0251163    .1677184
     infasym |  -3.101861   1.588379    -1.95   0.054    -6.254767    .0510457
     finlar1 |   .6902083   .1276287     5.41   0.000     .4368672    .9435493
     finlar2 |  -.2789722   .1384915    -2.01   0.047    -.5538756   -.0040687
     ifrsadp |   1.426515   .4878823     2.92   0.004     .4580761    2.394953
       _cons |   20.30746    10.0542     2.02   0.046      .350021     40.2649
-------------+----------------------------------------------------------------
     sigma_u |  2.4321858
     sigma_e |   2.013582
         rho |   .59333038   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(13, 96) =     2.57              Prob > F = 0.0043

. estimates store fixed


  . xtreg finl prof lev find agency growthopp infasym finlar1 finlar2 ifrsadp, re

  Random-effects GLS regression                   Number of obs      =       119
  Group variable: id                              Number of groups   =        14

  R-sq:  within  = 0.4620                         Obs per group: min =         7
         between = 0.4292                                        avg =       8.5
         overall = 0.4537                                        max =         9

                                                  Wald chi2(9)       =     90.52
  corr(u_i, X)   = 0 (assumed)                    Prob > chi2        =    0.0000

  ------------------------------------------------------------------------------
          finl |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
  -------------+----------------------------------------------------------------
          prof |   .0137225   .0153136     0.90   0.370    -.0162916    .0437366
           lev |  -.0093134   .0024201    -3.85   0.000    -.0140568     -.00457
          find |  -.1463544   .1973807    -0.74   0.458    -.5332135    .2405047
        agency |   .0001719   .0093704     0.02   0.985    -.0181938    .0185376
     growthopp |  -.0123021   .0462217    -0.27   0.790    -.1028949    .0782907
       infasym |  -.4414516   .3127216    -1.41   0.158    -1.054375    .1714716
       finlar1 |   .8072315   .1341456     6.02   0.000     .5443109    1.070152
       finlar2 |  -.2883257   .1389203    -2.08   0.038    -.5606045   -.0160469
       ifrsadp |   .5626725   .4376242     1.29   0.199    -.2950551      1.4204
         _cons |   3.568192   1.860222     1.92   0.055    -.0777766     7.21416
  -------------+----------------------------------------------------------------
       sigma_u |          0
       sigma_e |   2.013582
           rho |          0   (fraction of variance due to u_i)
  ------------------------------------------------------------------------------

  . estimates store random
```

```
. hausman fixed random
```

	Coefficients (b) fixed	(B) random	(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
prof	-.0023808	.0137225	-.0161033	.0123113
lev	-.0151952	-.0093134	-.0058818	.0012083
find	-.0320406	-.1463544	.1143138	.2013195
agency	.0047019	.0001719	.0045299	.0219181
growthopp	.0713011	-.0123021	.0836032	.0149308
infasym	-3.101861	-.4414516	-2.660409	1.55729
finlar1	.6902083	.8072315	-.1170232	.
finlar2	-.2789722	-.2883257	.0093535	.
ifrsadp	1.426515	.5626725	.8638423	.2156715

b = consistent under Ho and Ha; obtained from xtreg
B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

chi2(9) = (b-B)'[(V_b-V_B)^(-1)](b-B)
= 15.78
Prob>chi2 = 0.0717
(V_b-V_B is not positive definite)

```
. summarize finl prof lev find agency growthopp infasym finlar1 finlar2 ifrsadp
```

Variable	Obs	Mean	Std. Dev.	Min	Max
finl	123	1.068293	2.841981	0	25.47
prof	123	10.08065	15.13842	-35.23	83.14
lev	123	28.25179	89.38313	-540.33	255.09
find	123	1.781626	1.377573	-2.14	7.56
agency	123	18.22398	23.07653	0	84.44
growthopp	123	2.462764	5.283962	-18.03	33.42
infasym	123	6.526585	.8033126	4.97	8.38
finlar1	122	1.072131	2.853381	0	25.47
finlar2	121	1.076033	2.864918	0	25.47
ifrsadp	125	.536	.5007092	0	1

```
. xtreg finl prof lev find agency growthopp infasym finlar1 finlar2 ifrsadp, fe vce(bootstrap)
(running xtreg on estimation sample)

Bootstrap replications (50)
----+--- 1 ---+--- 2 ---+--- 3 ---+--- 4 ---+--- 5
..................................................    50

Fixed-effects (within) regression               Number of obs      =       119
Group variable: id                              Number of groups   =        14

R-sq:  within  = 0.5055                         Obs per group: min =         7
       between = 0.2127                                        avg =       8.5
       overall = 0.2756                                        max =         9

                                                Wald chi2(9)       =     23.33
corr(u_i, Xb)  = -0.7177                        Prob > chi2        =    0.0055

                                    (Replications based on 14 clusters in id)
```

finl	Observed Coef.	Bootstrap Std. Err.	z	P>|z|	Normal-based [95% Conf.	Interval]
prof	-.0023808	.0172163	-0.14	0.890	-.0361241	.0313626
lev	-.0151952	.0074366	-2.04	0.041	-.0297708	-.0006197
find	-.0320406	.260558	-0.12	0.902	-.5427248	.4786436
agency	.0047019	.0272868	0.17	0.863	-.0487793	.0581831
growthopp	.0713011	.0694511	1.03	0.305	-.0648206	.2074227
infasym	-3.101861	3.471266	-0.89	0.372	-9.905416	3.701695
finlar1	.6902083	.396943	1.74	0.082	-.0877857	1.468202
finlar2	-.2789722	.1907864	-1.46	0.144	-.6529066	.0949623
ifrsadp	1.426515	1.200275	1.19	0.235	-.9259806	3.77901
_cons	20.30746	21.82198	0.93	0.352	-22.46283	63.07775
sigma_u	2.4321858					
sigma_e	2.013582					
rho	.59333038	(fraction of variance due to u_i)				

```
.
```

```
. pwcorr finl prof lev find agency growthopp infasym finlar1 finlar2 ifrsadp, star (0.05) sig
```

	finl	prof	lev	find	agency	growth~p	infasym
finl	1.0000						
prof	0.0669 0.4624	1.0000					
lev	-0.4231* 0.0000	0.0352 0.6995	1.0000				
find	-0.1655 0.0673	0.2980* 0.0008	0.0762 0.4024	1.0000			
agency	0.0434 0.6335	0.2067* 0.0218	0.0059 0.9487	0.0487 0.5927	1.0000		
growthopp	-0.2163* 0.0163	0.2166* 0.0161	0.2504* 0.0052	0.4059* 0.0000	-0.1498 0.0981	1.0000	
infasym	-0.1383 0.1271	0.2158* 0.0165	0.0408 0.6542	0.5534* 0.0000	0.0799 0.3798	0.1528 0.0916	1.0000
finlar1	0.5300* 0.0000	0.0486 0.5963	-0.2752* 0.0023	-0.0898 0.3273	0.1328 0.1464	-0.1585 0.0825	0.0156 0.8651
finlar2	0.0112 0.9039	-0.0815 0.3781	-0.0540 0.5600	-0.0823 0.3735	0.1609 0.0804	0.0415 0.6538	0.0944 0.3074
ifrsadp	0.0913 0.3154	0.2442* 0.0065	0.1075 0.2367	-0.0191 0.8342	0.0520 0.5676	-0.1325 0.1440	0.1232 0.1746

	finlar1	finlar2	ifrsadp
finlar1	1.0000		
finlar2	0.5299* 0.0000	1.0000	
ifrsadp	0.0939 0.3034	0.0744 0.4174	1.0000