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Leasing: A Critical Financing Option in the Nigerian Financial Arena

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Abstract

The study examined the effect of lease financing on the performance of quoted consumer goods companies in Nigeria for the period - 2009 to 2018. Specifically, the study assesses the effect of finance or capital lease, leveraged lease and the moderating effect of firm size on lease financing and performance of consumer goods companies. It also employed historical research design in investigating cause and effect relationship among the variables. Using Desk Survey Method, data were collated from Annual Reports and Accounts of the companies. The Ordinary Least Square (OLS) Multiple Regression Technique, as well as descriptive statistics, was employed in the analysis of data. Pre-tests such as Panel Unit Root test and Johansen/Fisher combined co-integration were adopted to check the presence of non-stationary and long-run relationship respectively. Vector Auto Regressive Lag and Panel Vector Error Correction Model were also employed to address the issue of short-run and long-run dynamics. Estimated results showed that finance lease had a significant positive effect on the performance of quoted consumer goods companies in Nigeria. Leveraged lease and firm size exerted a significant negative effect on the performance of quoted consumer goods companies in Nigeria. Based on the results, it was recommended amongst other things that the amount of debt used in the firm capital mix should be proportionate to the size of the firm in terms of its assets and capacity to produce consumer goods. Also, firms should reduce the use of finance or capital lease as a financing option given the overall negative effect of lease financing on the performance of consumer goods companies in Nigeria; and rather adopt the use of operating lease which has an overall significant positive effect, especially in the short run.

Keywords: finance lease, profitability performance, combination lease, syndicated lease

1. Introduction

Assets are the life wire of any goal-directed business as it serves as the power that drives successful production of goods and services. A firm's assets can either be purchased or leased depending on the liquidity level of the company in need of the assets for the purpose of the desired business. Decision-making is an important component of corporate finance but one of the most essential yet controversial aspect of corporate finance is financing decision. Usually, such decisions are taken on the basis of the root of the domestic money markets. In developing economies of the world especially Nigeria, the management of corporate finance depend upon the decision to fall back on many sources of funding their businesses including loans to finance debts and run their firms (Obim, John & Orok, 2018). Lease financing from perspective of the lessee, constitutes the decision to lease non-movable assets or obtain cash through a loan to purchase new assets for operational and functional services.

A lease is a contract in which the one who owns a property (the lessor) grants to another party (the lessee) the unrestricted authority to use a given property for a known fee and time frame. Recently, there has been a increase in the demand for assets which automatically resulted in the growth leasing. Assets such as manufacturing

facilities, trucks and cars computers and other machines are acquired by a lessor and leased out to the lessee in terms well understood by the parties involved. One of the most glaring benefits attached to leasing an asset is that it helps the lessee to cut cost of acquiring an asset when the funds are limited. In other words, the money or funds that should have been utilized to acquire an asset for a defined period of time could simply be used for other ventures especially in times when resources are so scarce that the management of finances has become inevitable if set goals and objectives must be achieved. In a short or long run, a lease contract could also amount to consequences which one of the parties especially the lessee could bear. One of such risk is that, the lessee in most cases would resolve to bear the cost of repair and upkeep as well as ensure the assets leased for the period agreed upon in the terms and conditions of the contract binding both parties. The owner of an asset usually carries the risk of obsolescence, a serious one, because changes in technology or in consumer tastes may lower the asset's value, sometimes drastically (Udoka, 2018).

According to Takon, John, Mbaze-Ebock, Akpan, Asukwo, Awah & Nkamere (2020), in well-developed economies of the world, financial systems have the capacity to provide liquidity and ensuring financial assets are safe thereby enhancing the transfer of these assets across the sectors of the economy. This also guarantees government's attainment of macroeconomic objectives which results in the GDP growth, reduction in the rate of unemployment and attainment of price stability for the good of the citizenry and the country at large. That the private sector is the life wire of an economy and a plethora of firms make up this sector cannot be overemphasized. What is worthy of mention at this point, is the maintenance or sustainability measures that can keep these firms growing to boost the national economy. Abor (2008) averred that one of the most instrumental means of achieving an improved living standards and development is by setting up the private corporate sector. Therefore, it has become unavoidably imperative for businesses in developing economies of the world especially in Nigeria to ensure its financial capability and stability through financing decisions so that growth is enhanced to catalyze firms to the status where they can compete with others in the developed world in terms of creating employment opportunities and raising the standard of living among the poor. Such feat if achieved might generate income for governments and households. In developed economies, government try the best they can to make sure they give financial support to firms to create enabling business environment for start-ups and sustain functional operations. Such support could be given in times of recession, which most often than not demonstrates low-income capacity, decline in GDP; job loss and financial instability (Atseye, Obim and Awara, 2014).

Thus, for firms to continue the functional operations of leasing, lease financing is one among many other alternative financing strategies for the effective functioning of business operations. There is a proliferation of definitions of the term leasing, however, it is fundamentally viewed as a contract between 'the lessor' and 'the lessee' to enhance the hiring of a specified assets, required from the providers of asset hiring services. While the real owner holds proprietorship of the asset, the client gets custody and utilization of the asset by payment of stated amount of money within a given time frame. Financing decisions are crucial and leasing is key, especially when there are liquidity problems, as in the case of sale-and-lease-back financing arrangement where firms having cash flow problems, sell an asset to a finance institution and lease back the asset for a certain period under specific agreed terms in order to enable the continuation production (Mbat, 2001).

According to Udoka in Mbat, (2001), leasing is a very useful form of financing where bank borrowing is not available or bank borrowing is more expensive and usually needed for more pressing purposes. Udoka (2018) posited that there are various types of leasing arrangements, which he maintained among others to include the sale and lease back, capital lease, service lease and/or leveraged leasing. Lease financing is an important medium of asset financing because the signature put to a lease also represents money lending or borrowing. Its benefits range from reduction in transaction and administrative costs, and depreciation tax shield or investment tax credit, is passed to the borrower in the form of low or reduced lease repayments. Furthermore, leasing can serve as a catalyst to the financial statement of a firm by making a plus and/or reducing the income, capital expenditure controls are avoided and it also preserves capital.

In lease financing, the obligation of the party giving the lease and that of the one taking the lease are stated clearly in the terms and conditions of the contract binding the two parties contain. In the contract terms, the basic period within which the lease cannot be cancelled, the timing and payments for the specified period, choices as to the option to renew or not to renew the lease, and/or to buy off the asset at the end of the lease tenure as well as the provision for the payments for the costs of maintaining and repairing, payment of taxes, insurance cover, and any other expenses to be incurred. With the net lease, the boarder or rentee pays for all the expenses, while the maintenance lease has it that the leaseholder or the owner of the lease maintains the asset and takes care of the insurance cost (Udoka, 2018).

According to Mbat (2001), one key function of a financial manager is to ensure the firm's cash position can guarantee liquidity. This could be achieved through leasing in the sense that the lessee has the rights and

privileges to keep its cash and at the same time secure the possibility of getting additional funds from banks loan (Contino, 2002).

Leasing is an efficient medium for financing the plant or facilities of a firm (Bello, 2016). The lessor's part is basically to ensure and enhance the purchase of all the needed equipment by the party renting the lease. At this point, the borrower or the lease taker might have chosen the goods and may have directly contacted the supplier in order to determine the performance and suitability of the products needed (Salem, 2013). One way of obtaining assets used by firms for the production of goods and services is to acquire them by buying. However, where asset cannot readily be bought, leasing serves the needs of a firm (Bello, 2016). Therefore, firms decide whether to buy an asset or lease depending on their financial position at the time such assets are required by the lessee.

According to the Equipment Leasing Association of Nigeria ELAN (2012), there are over 350 companies established for the purpose of leasing in Nigeria. Leasing is a primary source of income to investors in most economies of the world. Therefore, all quoted companies are also faced with the problem of leasing or buying an asset to engineer the production of any sort. Apart from traditional dealers such as banks and financing institutions as well as leasing firms, new participants into the business such as insurance firms and discount houses, manufacturers and their vendors, oil firms, stock dealers and public firms (government owned companies) are in recent times in the business of leasing (Bello, 2016). In the past decades, leasing was often linked with real estate. However, times have changed and there is absolutely nothing that cannot be leased with the dynamic nature that the leasing course has assumed in today's business world (Hassan, 2009).

A firm's financial activities are a key factor determining an organization's value especially its income made from profits (Asimakopoulo, Samitas & Propadogonas, 2009). The measurements of financial performance fall into two categories. One of such performance index can be measured with investors' returns and the elementary knowledge of investors' returns is that it measurement of performance should be done from shareholders approach or perspective using share price and dividend yield. Although leasing has continued to generate interest among corporate managers, its impact on the performance of companies has been minimally investigated. This notwithstanding the fact that the interest in this fixed asset financing option sort to be justified vis-à-vis the firm's goals and objectives, which could include the profit maximization and/or shareholders' welfare as well as maintaining an increased level of liquidity status of the firm. However, leasing becomes helpful where borrowing from the bank becomes a problem either arising from unnecessary delays or where it is practically impossible when there is a pressing purpose. It is on this note that this study investigates the impact that leasing can possibly have on the performance of companies which are quoted on the Nigeria Stock Exchange.

Coincidentally, the specific objectives of this study are to:

i. Examine finance lease and its effect on the performance of quoted firms in Nigeria;

ii. Ascertain the level to which leveraged lease affects the performance of quoted firms in Nigeria; and

iii. Identify a firm's size and its moderating effects on lease financing and performance of quoted consumer goods firms in Nigeria.

For ease of comprehension, the study is structured into five sections. Section one is the introductory section, and delves into the general principles behind dividend policy and quoted firms' performance. Section two captures the theoretical considerations and literature review, while section three is the research methodology. In section four, data collected are presented, analyzed and interpreted for informed judgement. The remaining section of the study shows the summary of findings, conclusion and some managerial recommendations, derived from the discussions.

2. Theoretical Underpinnings

Diverse theories have been propagated regarding leasing, as well as its effect on firms' performance. These theories are the agency cost theory as well as the financial contracting theory.

3. Agency Costs Theory

Jensen & Meckling (1976) founded the agency cost theory that holds that executive managers as agents managing businesses for shareholders who are called the principals represent the interest of business owners in any given organization. Agency theory assumes that cost emanates from conflicting interest of management decisions managers, especially when it comes to debt decisions. According to Jensen & Meckling (1976), struggle between and among shareholders, managers, and bondholders is a major problem within the agency, hence agency problem relates with debts acquired by managers and transfer of risks associated with them to shareholders. For instance, managers issue debts instead of shares and bonds with the obligation to pay out future cash flows. It is difficult to say whether they distribute the earnings in form of dividends. Managers make promises to debt providers to pay back principal and interest. If they default in payment, the debt providers put

the firm in bankruptcy courts. Therefore, agency cost includes cost of litigation.

Smith & Warner (1979) asserts that financial lease can extenuate asset replacement problems because as a non-cancellable lease, capital/financial lease commits the lessee to use the leased asset during the lease contract judiciously. When firms are in a risky and critical situation of debt which does not only affects their capital base but the entire structure, shareholders fear low ROI and so make low investments. Such underinvestment could lead to giving up positive Net Present Value because the project's benefits are conceived to be lower while cost accrues. An existing debt may be such a huge load on a firm that it could inform them it is cost intensive to vent into borrowing or having access to funds externally. Debt overhang therefore causes investors to re-consider their investment decisions which may not be a good for a firm's growth and productivity ratio Myers (1977). However, Stulz & Johnson (1985) are of the opinion that non-cancellable, long-term lease should help reduce the problems of non-investment or poor investment due to financial woes. Nevertheless, when it concerns short-term operational/functional lease, agency costs might emerge between lessor and the lessee because since lessees have no right to ownership of the asset, they are hardly motivated to ensure proper handling.

The relevance of this theory to this study is crystal clear in the sense that it has taken time to explain the relationship between owners of assets and the users who are renting or are leased the asset in the time frame contained in their contract terms. As owners, lessors are usually worried about the maintenance of their assets while lessees are less concerned about the maintenance because of maintenance cost. Firms who are heavily indebted to financial institutions may have a problem of having investors because investors become afraid that their investment returns may not be high. So even when they are willing to invest, they underinvest due to the cost-benefit calculations which may likely not favor their investments all things being equal. But with lease financing, most debts could be serviced and other problems mitigated to the extent that management efficiency is maintained especially within quoted consumer goods firms and other related companies. There is no doubt that such financing option (capital lease) contributes enormously to the growth and development of the firms which are measured in terms of financial performance and other performance measurement criteria. Robicheaux et al. (2008) points to the fact that lease financing maintains and controls cost, improves management efficiency and effectiveness, increases productivity and external equity.

4. Financial Contracting Theory- (Kenneth Arrow, 1960)

This theory basically looks at the relationship between financiers and those who want their businesses to be financed. In the 60s, Kenneth Arrow carried out his first research in the area of financial contracting in economics. This theory basically concerns behavioral incentives as it affects principal owners and their agents.

Financial contracting looks at the relationship between cost and choices affecting financing through leasing. The theory emerged following Franco Modigliani and Merton Miller's theorem in 1958 which says a firm's sources of finance is dynamic. Financial distress most often arises from financial contracting due to asymmetric data shared between two parties a good financial contract that yields positive result comes from information symmetry (Sharpe & Nguyen, 1995). A financial contract is an agreement made between two parties to enter into the agreement to sell, buy, lease, re-buy, exchange or make any form of business for the purpose of profit.

This theory's relevance to the study is its emphasis on profitability of a firm which is affected by the decisions made by management. The structure of the firm should be hinged on management who allocate decisions and control rights to a certain degree. In any case, it is proper to evaluate the differences in tax composition and position between contracting parties. The differences in taxing associated with financial leasing can be looked upon by a process which allows tax allowances to be enjoyed by the lessor while tax benefits are indirectly pushed to the lessee through lower payment rates in servicing the lease agreement (Gosman & Ernest, 2000). Financial contracting theory therefore suggests a proper evaluation of financial cost before choices as regards leasing or purchasing are taken by investors who are directed by management decision analysis.

5. Impact of Lease Financing in Nigeria

Leasing is gaining ground as the years go by and it has been a strategic key in decision making for corporate institutions all over the world. Some argue on the fact that leasing has been contributing to the success of business (Akinbola & Otokiti, 2012). A country like Nigeria with its ambition to embark on infrastructural development could take this direction to ease its access to fund.

The impact of leasing in Nigeria is remarkable. Employment and tax revenues have been generated in all sectors of the economy. From 1996-2009, leasing has generated more than N1.6tn transactions (ELAN, 2012). Also, by 2006-2010, N1.767 trillion was generated as the total value of equipment leasing transactions.

The leasing industry does not operate in a vacuum and will no doubt be affected by developments in the macroeconomic environment. The impact however, is a double-edged sword—it is an established fact that leasing thrives whether the economy is booming or not.

Ordinary Nigerians are enjoying the fruits of leasing through the allocation of funds in various sectors of the economy (manufacturing, telecoms, agriculture, government and transportation). Over 350 members of Nigerian equipment leasing industry, 15,000 businesses that have secured lease financing and about 5million Nigerian jobs supported through leasing. 40 million US dollar value of foreign investment in three Nigerian leasing firms by Aureos Africa private equity fund, Belgium Investment Organization, Netherland Development Finance Bank and AFREXIM. This picture of the impact of lease financing practices in Nigeria is consistent with the work conducted by (Anyalechi & Nwude, 2004). The study reveals that lease financing options have a significant relationship with the capital adequacy/ liquidity of business organizations (lessors), hence significant impact on their profitability or general performance. A similar study carried out by Akinbola and Otokiti (2012) found that the profit of SMEs in Nigeria has been positively affected by lease financing options so far and that leasing has a significant relationship with the outcome of business organizations.

6. Methodology

The study adopted historical research design to analyse lease financing and the performance of quoted companies in Nigeria. According to Denga and Ali (1982), it aims at investigating cause and effect relationship. Kerlinger cited by Isangedighi, Joshua, Asim and Ekuri (2004), the authors asserted that historical plan is a methodical empirical investigation in which their exhibition have already happened or because they cannot be inherently manipulated.

The plan is suitable for this study in that past statistics on leasing and financial performance of quoted companies have existed already in the yearly reports and statement of accounts of the affected corporations during the period under study.

However, the aim of this study is an attempt to assess the association between lease financing and performance of quoted companies in Nigeria. The study engaged return on asset (ROA) as the representation for financial performance. Other variables employed are finance lease, leveraged lease and firm size. Therefore, the model developed for this study is shown below:

$$ROA = f(FNL, LEVL, FMSZ)$$

The econometric model of the equation is:

$$ROA = \beta_0 + \beta_1 FNL + \beta_2 LEVL + \beta_3 FMSZ + \varepsilon_0$$

Where:

ROA = Return on asset (proxy for performance)

FNL = Proxy for finance lease, measured by total lease financing divided by total assets or total cost of leasing divided by total assets.

Therefore, FNL = $\frac{\text{Total Lease Finance}}{\text{Total Assets}}$

FNL = $\frac{TLF}{TA}$

LEVL = Proxy for leveraged lease, this is measured by debt to total assets

$\frac{\text{Debt}}{\text{Total Assets}}$

FMSZ = Firm size which is the natural logarithm of total assets = logTA

β_0 = Constant term

$\beta_1, \beta_2, - - - - - \beta_3$ = Regression parameters or coefficient of explanatory variables

ε_0 = Stochastic error term

7. Data Analysis

Table 1. Result of correlation matrix

	ROA	LEVL	FNL	FMSZ
ROA	1	-0.0973	0.0393	0.5098
LEVL	-0.0973	1	0.0792	-0.0508
FNL	0.0393	0.0792	1	0.1900
FMSZ	0.5098	-0.0508	0.1900	1

Source: Researcher's presentation from E-views 10.0 statistical software.

Analysis of correlation among the variables is depicted in Table 1. Analysis was aimed at examining the degree of relationship among the variables. As depicted in the Table 1, return on assets had a negative (r = -0.097) relationship with leveraged lease. On the flip side, return on assets had a positive connection with finance lease (r = 0.039) and firm size (r = 0.509). Leveraged lease had a positive relationship with finance lease (r = 0.079) but on the other hand, leveraged lease had a negative link with firm size (r = -0.050). Lastly, finance lease has a positive correlation association with firm size (r = 0.190).

Table 2. Result of panel unit root test

	Common Unit Root				Individual Unit Root			
	Levin, Lin & Chin t*		ImPesaran and Shin W-stat		ADF - Fisher Chi-square		PP - Fisher Chi-square	
Variable	Statistics	*P*	Statistics	*P*	statistic	*P*	statistic	*P*
	First Difference							
ROA	-17.2750	0.0000*	-7.6031	0.0000*	159.449	0.0000*	177.391	0.0000*
LEVL	-12.1022	0.0000*	-4.8213	0.0000*	115.929	0.0000*	136.333	0.0000*
FNL	-14.4440	0.0000*	-6.7647	0.0000*	149.767	0.0000*	190.175	0.0000*
FMSZ	-15.0481	0.0000*	-5.1324	0.0000*	137.647	0.0000*	154.729	0.0000*

*series found to be stationary at 1%, 5% and 10% level of significance

Source: Author presentation from E-view 10.0 statistical software

This test is conducted to determine the possibility of a stationarity or non-stationarity of the series so as to ascertain whether the data is suitable for the model. Also, a data is said to be stationary if its statistical possessions such as mean, variance etc. are all persistent over time. The result of the unit root test levels using Levin, Lin and Chin measurement revealed that none of the variables was found to be stationery at 1%, 5% and 10% significance at levels. Giving this information, the study can accept the null hypotheses (ROA, LEVL, FNL and FMSZ) that the variables have a unit root at 0.01%, 0.05% and 0.1% level and rejected the alternative hypotheses.

However, when the variables were subjected to further testing at first difference using Levin, Lin and Chin measurement revealed that the variables were found to be stationery at 1%, 5% and 10% significance at levels. Giving this information, the study can reject the null hypotheses (ROA, LEVL, FNL and FMSZ) that the variables have a unit root at 0.01%, 0.05% and 0.1% level and accepted the alternative hypotheses. Since we have confirmed the stationarity of the variables at first difference, it therefore means that the variables chosen for this study are suitable to be used for further analysis.

Table 3. Result of Johansen/Fisher combined cointegration test

Johansen Fisher Panel Cointegration Test				
Series: ROA LEVL LFN FMSZ				
Unrestricted Co-integration Rank Test (Trace and Maximum Eigenvalue)				
Hypothesized No. of CE(s)	Fisher Stat.* (from trace test)	Prob.	Fisher Stat.* (from max-eigen test)	Prob.
None	321.1	0.0000	321.1	0.0000
At most 1	1004.	0.0000	1004.	0.0000
At most 2	2302.	0.0000	2302.	0.0000
At most 3	4077.	0.0000	4077.	0.0000
At most 4	1548.	0.0000	1548.	0.0000
* Probabilities are computed using asymptotic Chi-square distribution.				

Source: Author presentation from E-view 10.0 statistical software

The Johansen/Fisher combined cointegration test was engaged in this study in order to ascertain the possibility of a long-run association amongst the variables of interest.

Johansen (1988) suggested two diverse methods which includes the likelihood ratio trace statistics and the maximum eigenvalue statistics. Seeing that all the series were integrated of order 1 (1), signifying the incidence of a unit root, as such, the necessity to ascertain if there is the existence of a long run relationship by conducting a co- integration test amid the series.

Table 3 revealed that the Fisher trace test statistics indicated five (5) cointegrating equation at five percent significance level, given that the Fisher trace statistic value in the equations were less than their critical values and their corresponding probabilities were less than 0.05 using the asymptotic chi-square distribution. Based on the Fisher trace test, the study can conclude that there is the existence of long run affiliation amongst the variables in the model.

Similarly, Table 4 revealed that the Fisher maximum eigenvalue test statistics indicated five (5) co-integrating equation at five per cent significance level. This is because the Fisher maximum eigenvalue statistic values in each of the five (5) equations were less than their critical values and their corresponding probabilities were less than 0.05 using the asymptotic chi-square distribution. Based on the Fisher maximum eigenvalue test, the study can conclude that there is the presence of long run association among the parameter in the model. The long run association indicated that the variables go along over time so that short-term instabilities from the long-term could be adjusted.

Table 4. VAR lag order selection Criteria

Lag	LogL	LR	FPE	AIC	SC	HQ
1	-480.6428	NA	0.003216	5.611783	5.898892*	5.728223*
2	-462.0533	35.49854*	0.003124*	5.582523*	6.156742	5.815404
3	-449.1908	23.98097	0.003238	5.617975	6.479304	5.967296

Source: Author presentation from E-view 10.0 statistical software

7.1 VAR Lag Order Selection Criteria

Table 4 indicated that the AIC selection having lag two was most appropriate lag length except the Schwarz information criterion which selected lag one as its optimal lag. Since majority of the criteria favoured lag two, it meant that lag two was the optimal lag length for this study.

Table 5. Panel VECM long run and short run dynamic result

Standard errors in ( ) & t-statistics in [ ]

Co-integrating Eq:	CointEq1			
LROA(-1)	1.000000			
LLEVL(-1)	1.778705			
	(0.49605)			
	[3.58574]			
LFNL(-1)	-2.280534			
	(0.71871)			
	[-3.17310]			
LFMSZ(-1)	-0.358934			
	(0.23509)			
	[-1.52679]			
C	1.867056			
Error Correction:	D(LROA)	D(LLEVL)	D(LFNL)	D(LFMSZ)
CointEq1	-0.333023	-0.063966	0.061323	-0.002896
	(0.01970)	(0.02146)	(0.01911)	(0.00965)

	[-2.67666]	[-2.98088]	[3.20853]	[-0.29994]
D(LLEVL(-1))	0.150049	-0.045240	0.093094	-0.010279
	(0.07150)	(0.07790)	(0.06938)	(0.03504)
	[2.09871]	[-0.58078]	[1.34182]	[-0.29333]
D(LLEVL(-2))	-0.016088	0.160835	-0.159769	0.023025
	(0.09501)	(0.10351)	(0.09220)	(0.04657)
	[-0.16933]	[1.55374]	[-1.73291]	[0.49443]
D(LFNL(-1))	0.022124	-0.247247	-0.276955	0.021788
	(0.07851)	(0.08553)	(0.07618)	(0.03848)
	[0.28181]	[-2.89063]	[-3.63541]	[0.56621]
D(LFNL(-2))	0.102892	0.057722	-0.207625	-0.001428
	(0.07685)	(0.08373)	(0.07457)	(0.03767)
	[1.33889]	[0.68941]	[-2.78417]	[-0.03791]
D(LFMSZ(-1))	0.114037	0.285840	0.057064	-0.262296
	(0.16462)	(0.17936)	(0.15975)	(0.08069)
	[0.69271]	[1.59367]	[0.35721]	[-3.25066]
D(LFMSZ(-2))	0.071819	0.365251	0.304352	0.064777
	(0.18001)	(0.19612)	(0.17468)	(0.08823)
	[0.39897]	[1.86237]	[1.74234]	[0.73418]
C	0.033473	-0.021277	-0.018507	0.100029
	(0.04680)	(0.05099)	(0.04542)	(0.02294)
	[0.71520]	[-0.41725]	[-0.40749]	[4.36038]
R-squared	0.577216	0.532780	0.740099	0.674532
Adj. R-squared	0.527485	0.486043	0.699147	0.624657
Sum sq. resids	54.03296	64.13921	50.88101	12.98123
S.E. equation	0.568815	0.619732	0.551975	0.278804
F-statistic	9.552682	7.841030	5.862839	11.94362
Log likelihood	-146.1420	-161.3163	-140.8227	-19.93301
Akaike AIC	1.764316	1.935778	1.704211	0.338226
Schwarz SC	1.943759	2.115221	1.883655	0.517670
Mean dependent	0.044807	0.023272	0.002684	0.088067
S.D. dependent	0.576797	0.648247	0.616798	0.282307

Source: Author presentation from E-view 10.0 statistical software

7.2 Panel Vector Error Correction Model (VECM) Long Run Estimates

Given that the unit root test using the LLC showed that all the variables were stationary when differenced once I (1) and the co-integration the using Fisher Johansen approach confirmed the existence of a long-run relationship amongst the variables, the study estimated the restricted vector error correction model (VECM) to capture the short run dynamic relation and the long run relation as well as the equilibrium parameter (the ECM).

This study adopted the Akaike Information Criterion (AIC) which indicated the optimal lags of two, and the panel VECM result in Table 5 captured the dependent variable, that is, return on assets (ROA). Considering return on asset (ROA) as a measure of performance of quoted consumer goods firms in Nigeria, the ROA decreases as a result of lease financing measures of these firms in the long run. The constant coefficient of the panel VECM analysis revealed that, all things being equal, ROA of quoted consumer goods firms in Nigeria is decreased by 1.86 per cent as result of lease financing measures (LEVL, FNL, FMSZ) in the long run.

$$ROA = -1.86-1.77*LEVL+2.28*FNL + 0.35*FMSZ \quad 4.1$$

The analysis further revealed that, leveraged lease had a significant negative effect on ROA of quoted consumer goods firms in Nigeria in the long run by 1.77 per cent, all things being equal. The total value of finance lease of these firms enhanced the ROA of these firms in Nigeria in the long run by 2.28 per cent and was found to be statistically significant at the conventional five level of significance all things being equal. Lastly, the total value of firm size of quoted consumer goods firms in Nigeria also enhanced the return of assets of these firms in Nigeria in the long run by 0.35 per cent but was found to be insignificant at the conventional five level of significance all things being equal.

7.3 Panel Short Run Error Correction Term (ECT)

The ECT shows the speed of adjustment to restore equilibrium in the dynamic model in the short run and its coefficient shows how quickly variables converge to equilibrium in the short run, and it should have a statistically significant coefficient with a negative sign. The ECT tells the speed with which our model returns to equilibrium in the short run following an exogenous shock in the long run, and expected theoretically to be negatively signed.

Further analysis of the panel ECT estimate result revealed that, the return on assets (ROA) annual result for the variables (LEVL, FNL, FMSZ) indicated the expected negative sign of ECT and statistically significant as theoretically expected. The significant ECT further checks the presence of a steady long run association. This is in consonance with the presence of the long run significant relationship between lease financing and return on assets of these firms in Nigeria. The ECT coefficient of -0.3330 imply that move away from the long run the ROA of these firms in Nigeria is deemed corrected by 33.30 per cent in the preceding year. This negative sign signals a wavering convergence in the ROA of these firms in Nigeria and a move back towards equilibrium.

7.4 Panel VECM Short Run Dynamic Estimates

Based on the dependent variable, ROA, the panel VECM short run test revealed the ROA of these firms in Nigeria increases as a result of lease financing measures in the short run. The VECM constant revealed that, all things being equal, the ROA of these firms in Nigeria was increased by 0.033 percent as a result of lease financing by these firms in Nigeria in the short run. Furthermore, the short run VECM result indicated that, the previous lagged time-frame of leveraged lease had an insignificant positive effect on the ROA of these firms in Nigeria in the short run.

The implication of the positive effect is that, a percentage increase in LEVL will lead to corresponding increases in the ROA of these firms in Nigeria by 0.15 per cent, ceteris paribus. While at the previous two lagged periods, leveraged lease (LEVL) of these firms in Nigeria had an insignificant negative effect on the ROA of these firms in Nigeria in the short run. The implication of the negative effect is that, a percentage increase in LEVL will result to corresponding decreases in the ROA of these firms in Nigeria by 0.01 per cent, ceteris paribus.

Finance lease (FNL) of these firms in Nigeria had an insignificant positive effect on the ROA of these firms in Nigeria at previous lagged one and previous lagged two periods in the short run. The implication of the positive impact is that, a percentage increase in FNL will lead to corresponding increases in the ROA of these firms in Nigeria by 0.10 per cent in lag one and 0.11 per cent in lag two, ceteris paribus.

Lastly, the firm size (FMSZ) of these quoted firms in Nigeria had an insignificant positive effect on the ROA of these firms in Nigeria at previous lagged one and previous lagged two periods in the short run. The implication of the positive impact is that, a percentage increase in FMSZ will lead to corresponding increases in the ROA if these quoted firms in Nigeria by 0.11 per cent in lag one and 0.07 per cent in lag two, ceteris paribus. The VECM result further indicated that the adjusted R^2 of 0.5772 or 57.72 per cent and F-statistic of 9.55 suggesting that the model had a goodness fit with a joint statistical significance of the model at five percent.

Table 6. Panel VECM residual serial correlation LM tests

Null hypothesis: No serial correlation at lag h						
Lag	LRE* stat	Df	Prob.	Rao F-stat	df	Prob.
1	23.95934	16	0.0904	1.512550	(16, 489.4)	0.0904
2	16.11337	16	0.4451	1.009175	(16, 489.4)	0.4452
3	20.11990	16	0.2149	1.265228	(16, 489.4)	0.2149
Null hypothesis: No serial correlation at lags 1 to h						
Lag	LRE* stat	Df	Prob.	Rao F-stat	df	Prob.

1	23.95934	16	0.0904	1.512550	(16, 489.4)	0.0904
2	39.17769	32	0.1789	1.233654	(32, 576.9)	0.1791
3	63.17521	48	0.0699	1.334417	(48, 587.6)	0.0703

*Edgeworth expansion corrected likelihood ratio statistic.

Source: Author presentation from E-view 10.0 statistical software

7.5 VEC Residual Serial Correlation LM Test

The VEC residual serial correlation LM test in Table 7, that is, LRE*stat (0.0904, 0.4451, 0.2149) and Rao F-stat (0.0904, 0.4452, 0.2149) are greater 0.05 hence, the study accepts the null hypothesis that, there is no serial correlation at lag order up to h. The implication is that, the VEC model is sufficient enough to capture all the dynamics of the model.

Table 7. Summarized f-test from the VECM Wald coefficient restriction test

The f-test as summarized:	f-tab	Corresponding probability	Remarks
LEVL: C(3)+C(4)=0 {3.24}	± 2.85	0.0048	Significant
FNL: C(5)+C(6)=0 {6.04}	± 2.85	0.0006	Significant
FMSZ: C(7)+C(8)=0 {5.44}	± 2.85	0.0002	Significant

Source: E-view 10.0 Econometric Software

7.6 Test of Hypothesis One

H0: Finance lease does not have a significant effect on the performance of quoted firms in Nigeria.

H1: Finance lease does have a significant effect on the performance of quoted firms in Nigeria.

From the result in Table 8, it can be deduced that finance lease (FNL) {3.24} is greater than 2.85 which represented the f-tabulated implying that FNL is statistically significant at various lags as the case may be. All things being equal, the study accepted the alternative hypothesis and therefore concluded that: finance lease does possess a significant influence on the performance of quoted firms in Nigeria in the short run.

7.7 Test of Hypothesis Two

H0: Leveraged lease does not significantly influence the performance of quoted companies in Nigeria.

H1: Leveraged lease does have significant effect on the performance of quoted firms in Nigeria.

From the result in Table 8, it can be deduced that leveraged lease (LEVL) {6.04} is greater than 2.85 which represented the f-tabulated implying that LEVL is statistically significant at various lags as the case may be. All things being equal, the study accepted the alternative hypothesis and therefore concluded that: leveraged lease does possess a significant influence on the performance of quoted firms in Nigeria in the short run.

7.8 Test of Hypothesis Three

H0: Firm size has no significant impact on lease financing and the performance of quoted firms in Nigeria.

H1: Firm size has a significant impact on lease financing and the performance of quoted firms in Nigeria.

From the result in Table 8, it be can deduced that firm size (FMSZ) {5.44} is greater than 2.85 which represented the f-tabulated implying that FMSZ is statistically significant at various lags as the case may be. All things being equal, the study accepted the alternative hypothesis and therefore concluded that: there is a significant impact of firm size on the performance of quoted companies in Nigeria.

The result of the study as analyzed in the preceding sections showed that lease financing measures have varying influence on the ROA of these quoted firms in Nigeria during the period under study. According to the result, finance lease mostly exhibited an insignificant positive effect on the ROA of these quoted firms in Nigeria at various lag in the short run. This means that finance lease in quoted companies in Nigeria was very useful especially where bank borrowing was not available or more expensive (John, Takon, Obim, Emefiele, Ita & Nkamere, 2022). As such, finance lease aided in the reduction in transaction and administrative costs, and depreciation tax shield or investment tax credit which resulted in improved return on the ROA of these firms under study in the short run (Udoka, 2018). On the other hand, finance lease exhibited a negative influence on the ROA of quoted firms in Nigeria in the long run. Therefore, finance lease used as major source of financing

instead being an alternative option would have in the long run impacted the ROA of these quoted firms in Nigeria negatively.

Specifically, leveraged lease exhibited a negative and significant stimulus on the ROA of consumer goods firms in Nigeria in the long run. While in the short run, the effect of leveraged lease on the ROA of these quoted firms in Nigeria was positive and significant. The short run effect of leveraged lease on ROA theoretically opined from the analysis of this research that leveraged lease financing provides tax shield, thus, debt is considered an affordable means of funding than equity financing to an acceptable degree (Takon, John, Ononiwu & Mgbado, 2020). Reaching an acceptable level, the cost of debt overshadows the tax paybacks. The positive effect is consistent with the works of P-Eroitis, Frangouli, and Ventoura (2011), Roy Badar and AsifSaeed (2013), BoodHooRoshan (2009) and with the assertion of Cuny and Pirinsky (2004) that when debt claims remain riskless, both the asset substitution and underinvestment problems disappear but at high level of debt, reverse is the case. This is in agreement with the alternative hypothesis of this study that leveraged lease does have a significant effect on the performance of quoted companies in Nigeria especially in the short run.

Further findings from the panel VECM results revealed that finance lease exhibited a significant positive effect on the ROA of quoted firms in Nigeria in the short and long run periods. This means that finance lease has significant relationship with the capital adequacy/liquidity of business organizations, hence, its significant impact on their profitability or general performance. Therefore, companies that opted for lease financing, on an average basis, register high EBIT than non-lessee companies, and the finding is in agreement with Siam and Qutaishat (2007).

Also, in support of this was the study by Mohammed, Naveed and Hammed (2012) who studied influencing and profitability of leasing firms in Pakistan and revealed that the net investment in liquidity, size and lease finance possessed a positive association with performance. This is in agreement with the alternative hypothesis of this study that finance lease does have a significant influence on the performance of quoted firms in Nigeria.

Lastly, firm size exhibited a significant negative influence on the ROA of quoted companies in Nigeria in the long run. While in the short run, the effect of firm size on the ROA of these quoted firms in Nigeria was significantly positive. The short run effect of the size of a firm determines the level of its leverage at any point in time in that large firms are more expanded with less vulnerability to bankruptcy. The size of an organization is likely to have positive relationship with leverage (Baral, 2004 & Bauer, 2004). The finding agreed with Abor (2008) who contributed to the literature with the view that debt of large firms are likely to be redeemed than the debt of smaller businesses, reducing the agency costs related with the debt of larger firms. Thus, smaller firms are less diversified and more vulnerable to bankruptcy, therefore there is a need for low debt ratio. This is in agreement with the alternative hypothesis that firm size possesses a significant effect on the performance of quoted companies in Nigeria, especially in the short run.

8. Summary of Findings

The major findings of this study are summarized below in line with its objectives and hypotheses:

- Finance lease influenced the return on assets of quoted firms positively and significantly in Nigeria, ceteris paribus.
- Leveraged lease exerted a significant negative impact on return on assets of quoted companies in Nigeria in the long run. On the flip side, leveraged lease was positive and significant in enhancing the return on assets, ceteris paribus, in the short run.
- Firm size exerted a significant negative influence on ROA of quoted companies in Nigeria in the long run, while in the short run, firm size was positive and significant in enhancing the return on assets, ceteris paribus.

9. Conclusion

This study investigated empirically the consequence of lease financing on the ROA of quoted firms in Nigeria. To simplify issues, this study set out to examine empirically the degree to which lease financing variables such as leveraged lease, finance lease and firm size have affected the ROA of these firms in Nigeria. The overall short run impact of lease financing on the ROA of these quoted firms in Nigeria is in line with the financial contracting theory which suggested that firm features should affect the costs of contract. By implication, leasing is a likelihood for organizations to enlarge their access to short- and medium-term funding rather than long-term financing.

The study agreed with the conclusion by Tarus (1997) especially in the short and medium term. Based on the overall findings, it is concluded that quoted firms in Nigeria should adopt finance lease as an alternative financing option in the short run period, and at most, the medium-term period in order to sustain its positive impact on the return on assets as the case may be.

10. Recommendations

The recommendations made from the findings are:

- The amount of debt used in the firm capital mix should be proportionate to the size of the company in terms of its assets and capacity to produce quality products.
- Given the overall negative impact of finance or capital lease on the ROA of these quoted firms in Nigeria especially in the long run, it is recommended that these companies should reduce the use of capital lease as a financing option. This is because capital lease is a long-term non-cancellable lease contract and would negatively impact the ROA of these firms in the long run.
- Lastly, given the overall significant and positive influence of finance or capital lease on the ROA of quoted firms in Nigeria especially in the short run, it is recommended that these companies should adopt and use only operating lease as a financing option. This is because capital lease is a short-term cancelable lease contract and would positively impact the return on assets of these companies in the short run.

11. Contribution to Knowledge

The study was able to modify the model, enlarge the current literature and updated data especially on the various lease financing options employed by quoted companies in Nigeria that will enable scholars to use it for future researches. The study submitted that leasing should only be employed as an alternative financing option in a short-term basis. However, larger companies and conglomerates may choose the long-term (capital lease contract) in line with the nature of, and the size of their companies.

References

Abor, J., (2007). Debt policy and performance of SMEs, evidence from Ghanaian and South African firms. *Journal of Risk Finance, 8*, 364-379.

Abor, J., (2008). Determinants of the capital structure of Ghanian firms. African Economic Research Consortium, Research Paper No. 176.

Adekunle, W., (2005). Risk in managing default in the Nigerian. *Leasing Industry Today a Quarterly Newsletter of Equipment Leasing Association of Nigeria, 6*, 15-18.

Akinbola, O.A. & Otokiti, B.O., (2012). Effects of lease option as a source of finance on the profitability performance of SME's in Lagos State, Nigeria. *International Journal of Economic Development Research and Investment, 3*(3), 70-76.

Akpan, Emmanuel, Akpan, E. S., Riman, H. B. & Mboto, H. W, (2011). Innovation Financing, Industrial production and the Growth of Nigeria's Non-oil Exports. *African Journal of Science, Technology, Innovation and Development*, *3*(1), 121-142.

Anyalechi, K. C. & Nwude, E. C., (2018). Impact of capital structure on performance of commercial banks in Nigeria. *International Journal of Economics and Financial Issues, 8*(2), 298-303.

Asimakopoulos, I., Samitas, A. & Papadogonas, T., (2009). Firm specific and economy wide determinants of firm probability: Greek Evidence Using Panel Data. *Managerial Finance, 35*(11), 930-939.

Atseye, F. A., Obim, N. E. & Awara F. E., (2014). Determinants of financial structure: evidence from Nigerian quoted firms. *Research Journal of Finance and Accounting, 5*(16), 53-66.

Araga, A. S., (1996). Equipment leasing in Nigeria: practice and issues. *Journal of Social and Management Sciences, 2,* 22-36.

Baral, K. J., (2004). Determinants of capital structure: A case study of listed companies in Nepal. *The Journal of Nepalese Business Studies*, *1*(1), 1-13.

Bauer, P., (2004). Capital structure of listed companies in visegrad countries. *Praque Economic Papers*, (2), 159-175.

Bello, U., (2016). Impact of lease financing on liquidity of Nigerian oil and gas companies. *International Journal of Economics, Commerce and Management, 4*(1), 253-264.

Berger, A. & Udell, G., (2005). A more complete conceptual framework for financing of small and medium enterprises. World Bank Policy Research working Paper No.16. January 2012.

Contino, R. M., (2002). *The complete equipment-leasing handbook: A deal maker's guide with forms, checklists, and worksheets*. New York: AMACOM, 1601 Broadway.

Denga, D. I & Ali, A., (1982). *An introduction to research methods and statistics in education and social sciences*, Calabar: Rapid Educational Publishers.

East African Development Bank., (2004). Local currency lease facility now available. Retrieved November, 23, 2007, from http://www.eadb.org/lease facility.

Equipment Leasing Association of Nigeria, (2012). Annual Report and Accounts: Nigeria.

Fletcher, M., Freeman, R., Sultanov, M. & Umarov, U., (2005). Leasing in development: Guidelines for emerging economies. IFC. 2005.

Gallardo, J., (1997). Leasing to support small business and microenterprises. World Bank Policy Research.

Gosman, Martin L. & Ernest I. Hanson, (2000). The impact of leasing on lenders' evaluations of firms' debt levels, *Commercial Lending Review,* 15, 53-60.

Hassan, S. U., (2009). The impact of finance lease on the profitability of Nigerian banks. *Journal of Finance and Accounting Research, 1*(3), 28-36.

Imhoff, E. A., Robert C. L., & David, W. W., (2004). Operating leases: Impact of constructive capitalization, *Accounting Horizons, 5*, 51-63.

International Accounting Standard (IAS17-Leases) available at www.iasplus.com/en/standards/ias/ias17. (accessed February 28, 2021).

Isangedighi J. A., Joshua, M. T., Asim, E. A & Ekuri, E. E., (2004). *Fundamentals of research and statistics in education and social science. Calabar:* University of Calabar Press.

Jensen, M. C. & Meckling, W. H., (1976). *Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure*. University of Rochester, Rochester, NY 14627, U.S.A. Received January 1976, revised version received July 1976.

Jensen, M. C. & Meckling, W. H., (1976). Can the corporation survive? Center for Research in Government Policy and Business Working Paper No. PPS 76-4 (University of Rochester, Rochester, NY).

Johansen S., (1988). Statistical Analysis of Cointegration Vectors. *J Econ Dyn Control, 12*(2-3), 231-254.

John, J. I., Takon, S. M., Obim, E. N., Emefiele, C. C., Ita, R. I. & Nkamere, S. E., (2022). Monetary policy instruments and economic growth: The Nigerian perspective. *Unicross Journal of Science and Technology, 1*(1), 97-107.

Joseph, K., (2009). Leasing competence, lease structure and perceived performance of SMEs in Uganda. (M.Sc.), University of Makerere.

Kenneth J. Arrow, (1960). *The European Journal of the History of Economic Thought, 24*, 5, 1123-1129, DOI: 10.1080/09672567.2017.1366123.

Kisaame, J., (2007). Agribusiness: Vendor financing in input markets, A case study of DFCU leasing company Uganda, paving the way for rural finance. A paper presented at an International Conference on Best Practices. Kampala.

Kraemer, H. & Lang, F., (2012). The importance of leasing for SME finance. Working Paper 2012/15 EIF Research & Market Analysis, Luxembourg.

Kurfi, A. K., (2003). *Principles of financial management*, 1st ed. Kano, Nigeria: Benchmark publishers ltd.

Lasfer, M. A. & Levis, M., (1996). The determinants of leasing decision of small and large companies. London: University Business School, Barbican Centre.

Mbat, D. O., (2001). *Financial management*. Uyo: Domes Associates.

Mehar, A., (2005). Impacts of equity financing on liquidity position of a firm. *Applied Financial Economics, 12,* 17-23.

Metawa, A. S., (1995). The evaluation of lease investment opportunities: A decision support methodology, *facilities, 13,* 6-17.

Miller, H. & Uptron, C. H., (1976). Leasing, buying, and the cost of capital services. *The Journal of Finance, 31,* 761-786.

Modigliani, F. & Miller, M., (1958). The cost of capital, corporate finance and theory of investment. *American Economic Review, 48*(3), 261-297,

Myers, S. C., (1977). Determinants of corporate borrowing. *Journal of Financial Economics, 5,* 147-175.

Ndu, E., (2004). Understanding the equipment product, leasing today, *ELAN News Letter, 6*(2), Lagos, Nigeria.

Nigerian Accounting Standard Board, (2010).

Nzotta, S. M., (1999). *Money, banking and finance (Theory and practice).* Owerri, Nigeria: Intercontinental Ed

books and publishers.

Obim, E. N., John, J. I. & Orok, A. B., (2018). Interest rate policy and the growth of the Nigerian economy (1990-2016). *Journal of Banking and Financial Dynamics, 2*(5), 16-23.

Oko, A. E. & Etuk, F. J., (2012). Risk management in Nigeria: The lease industry. *Business and Management Review*, *218,* 05-14.

Pinches, George, (1984). *Essentials of financial management*. New York: Harper & Row Publishers.

Robicheaux, S. & Fu, X., (2008). Lease financing and corporate governance. *Financial Review*, *43*(3), 403-437.

Rowland, P., (2000). Pricing lease clauses: The prospect of art being science. *Journal of Property Investment and Finance, 18,* 44-234.

Salam, M. D., (2013). Effect of lease financial on performance of SME's in Bangladesh, *International Journal of Science Research, 2*(2), 367-370

Salem, A., (2013). Effects of lease finance on performance of SMEs in Bangladesh. *International Journal of Science and Research, 2*(12), 2319-7564.

Sharpe, S. A. & Nguyen, H. H., (1995). Capital market imperfections and the incentive to lease. *Journal of Financial Economics, 39,* 271-294.

Smith, Clifford W & Jerold B. Warner, (1979). Bankruptcy, secured debt, and optimal capital structure Comment, *Journal of Finance, 34*, 2477251.

Stulz, R. M. & Johnson, H., (1985). An analysis of secured debt. *Journal of Financial Economics, 14*(27), 501-521.

Suson, S. K. Lee, (2003). Capital and operating leases. A research report from Federal Accounting Standards Advisory Board, Nigeria.

Takon, S. M. John, J. I., Ononiwu, E. & Mgbado, M., (2020). Determinants of the cost of financial intermediation in Nigeria's pre-consolidated and post-consolidated banking sector. *International Journal of Economics and Financial Management, 5*(1), 30-41.

Takon, S. M. John, J. I., Mbaze-Ebock, V. A., Akpan, J. S., Asukwo, J. I., Awah, C. I. A. & Nkamere, S. E., (2020). The dynamics of inflation on banks' profitability in Nigeria: An autoregressive distributed lag (ARDL) model. *Journal of Critical Reviews, 7*(13), 4442-4448.

Tarus, K., (1997). Determination of the factors influencing the growth of finance leases in Kenya. Unpublished MBA Research paper, University of Nairobi.

Udoka, C. O., (2001). *Sources of fund for a business enterprise in Mbat*. Topical issues in finance: University of Calabar Printing Press.

Udoka, C. O., (2018). *Investment and merchant banking in Nigeria,* Calabar: University of Calabar Printing Press.

Weiss, P. B., (2003). Buy or lease? *Strategic finance, 1*(2), 20-23.