

Lease Financing and Financial Performance of Pharmaceutical Companies in Nigeria: An Empirical Perspective

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Abstract

This study examined the effect of lease financing on financial performance of listed pharmaceutical companies in Nigeria. The ex post facto research design was adopted for the study with a population of seven (7) listed pharmaceutical companies in Nigeria as listed by the Nigerian Exchange Group in 2022. Data were retrieved from the annual reports of the selected listed pharmaceutical companies for the period 2015 to 2021. Multiple regression (Ordinary Least Square) analysis was used to analyse the data gathered with the aid of Stata12 statistical software. The study revealed a negative and insignificant effect of lease financing on net profit margin of listed pharmaceutical companies in Nigeria. Also, it revealed a negative and insignificant effect of lease financing on return on assets of listed pharmaceutical companies in Nigeria. Therefore, it was recommended that listed pharmaceutical companies in Nigeria should increase the proportion of lease finance in their operations as evidence suggests it has a negative and insignificant effect on financial performance (net profit margin). Also, that policymakers should increase tax shield for leasing products so as to encourage firms to make use of leasing financing rather than having high credits as it has shown that most pharmaceutical companies are yet to appreciate lease financing as an alternative source of financing.

Keywords: *Lease Financing, Net Profit Margin, Return on Asset, Financial Performance*

1. Introduction

Capital investment leading to expansion or modernization or reconstruction, requires finance to a large extent and likely to result in increased production and profit. Hence, access to finance is important to start up and expand businesses through the development or investment in a new product, production process, and human capital (Gebremichael et al., 2020). Companies need the right and current equipment to facilitate its operation for enhanced financial performance. These companies require large capital outlay to acquire these equipments. In most situation these funds

are not available and can only be achieved through lease financing. The timing of getting funds is also critical for the organizations to get the better results by using those funds (Khalil et al., 2017). The leasing decisions concern whether a firm should lease equipment, or borrows money and buy the equipment. International Financial Reporting Standard (IFRS) 16 defines a lease as “A contract, or part of a contract, that conveys the right to use an asset for a period of time in exchange for consideration”.

Leasing as a source of finance has proven to be suitable for developing private subdivision in evolution and in low earning area like sub-Saharan Africa. The economic benefits of leasing can be derivative from the company's decision of leasing relative to borrowing and obtaining the asset. In the Nigeria pharmaceutical sector, financing has been an issue as most equipments needed involved large capital outlay. Management of companies tries to make the best strategic decision using leasing to provide those equipments instead of outrightly buying them. Also, with the advancement in technology, most equipments get obsolete quick. This view is in line with the assertion of Abdulkarim et al. (2020) that leases are a suitable financing option where substantial capital outlay is required for assets as obtains in technology-intensive industries. So, leasing serves as a better option for getting the current and required equipments for enhanced performance. This study therefore examines the effect of lease financing on financial performance of listed pharmaceutical companies in Nigeria.

Operational Framework

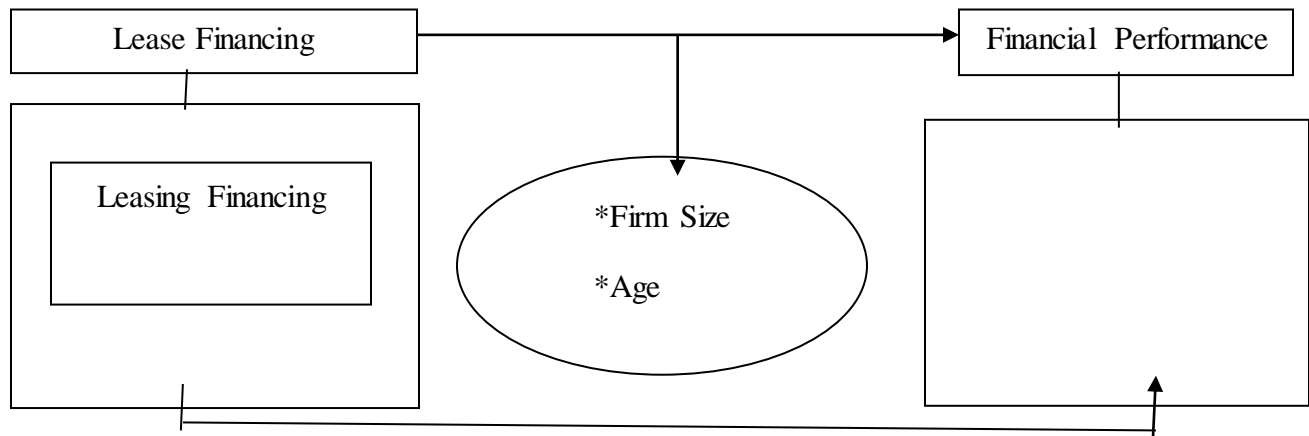


Figure 1: Operational Framework of Lease Financing and Financial Performance.

The following hypotheses were stated in null form

H01 There is no significant effect of lease financing on net profit margin of listed Pharmaceutical companies in Nigeria.

H02 There is no significant effect of lease financing on return on asset of listed Pharmaceutical companies in Nigeria.

2. Literature Review

Lease Financing

Lease Financing is an alternative arrangement of medium- and long-term loan. In Lease financing, the owner of an asset gives another person, the right to use that asset against periodical payments. The owner of the asset is known as lessor and the user is called lessee. Umar and Aliyu (2016) defined lease financing as an alternative mode or form of financing to the traditional debt and equity capital for the acquisition of capital assets by firms. Accounting for lease is the process by which a company records the financial impacts of its leasing activities. Leases that meet specific classification requirements must be recorded on a company's financial statements (Cote, 2021).

IFRS 16 eliminates the classification of leases as either operating leases or finance leases for a lessee. IFRS 16 changes significantly how a company accounts for leases that were off statement of financial position applying IAS 17, other than short-term leases (leases of 12 months or less) and leases of low-value assets (such as personal computers and office furniture). Applying IFRS 16, in essence for all leases, a company is required to: (a) recognize lease assets and lease liabilities in the statement of financial position, initially measured at the present value of unavoidable future lease payments; (b) recognize depreciation of lease assets and interest on lease liabilities in the income statement over the lease term; and (c) separate the total amount of cash paid into a principal portion (presented within financing activities) and interest (typically presented within either operating or financing activities) in the cash flow statement.

Financial Performance

According to Kenton (2022), financial performance is a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues. The term is also used as a general measure of a firm's overall financial health over a given period. A high level of performance signifies that all its factors of production has optimally utilized efficiently and effectively. Rong et al. (2019) asserts that a performing company is a company that creates value for its shareholders and this is realized when the return on equity is higher than the funding cost. Financial performance indices are used to measure firm's overall financial health over a given period of time and can also be used to compare similar firms across the same industry or to compare industries or sectors in aggregation (Verma, 2021).

Theoretical framework

The theoretical framework of this study is anchored on the pecking order theory. The proponents of this theory are Myers and Majluf (1984). According to Myers (1984), firms finance their activities with retained earning when feasible. If the retain earning is inadequate, then debt is used. Only in extreme cases will firms use new equity finance. Thus, the order of financial sources used was the source of internal funds from profits, short-term securities, debt, preferred stock and common stock last. Pecking order theory predicts that the issuance of equity (common stock) is the last alternative sources of funding. The pecking order theory generally explains why firms might rationally let cash flows determine leverage. This suggests that firms turn to debt funds under pressure of an internal fund's shortage.

The pecking order theory suggests that leasing is negatively related to profitability and is related positively to asset growth over time. Among the factors that most researchers have agreed upon as being the determinants in leasing is the tax bracket of the lessee. In leasing, it is possible to transfer unusable tax shields for firms with low or zero marginal tax rates, to taxpaying lessors and in turn the lessee pays lower lease payments. Consistent with Myers and Majluf (1984) one can argue that leasing, being similar to secured debt should also mitigate the adverse selection problem. By financing via true lease, the firm puts the lease obligation at par with other administrative expenses that have higher priority than normal debt, making leasing a highly desirable financial contract in the presence of asymmetric information as it puts leasing at the top of the pecking order of external financing options (Kajirwa & Ikapel, 2016). This theory is relevant to this study because by examining leasing within a pecking order framework, profitability and growth are introduced as potentially important determinants of leasing.

Empirical Review

Atseye et al. (2020) examined the causal relationship between lease financing and profitability of Nigerian quoted conglomerates for the period spanning 2012-2017. Data were collated from published accounts of 6 conglomerates that are quoted on the Nigerian Stock Exchange as at 2017. Data were analysed using descriptive and pooled ordinary least square multiple regression statistics. Estimated panel results indicated a negative and insignificant impact of fixed assets turnover on return on assets (ROA), lease financing (LFN) had a positive and insignificant impact on ROA.

Olweny and Muthoni (2019) examined the effect of lease finance conditions on the financial performance of small and medium sized enterprises in Kenya. Descriptive research design was adopted with a population of 308 SMEs from which a sample of 102 respondents was drawn from. A correlation test and multiple linear regression was used for data analysis. The study revealed that Flexible lease charges improve company's budgetary planning and even its control which are the desired ingredients for financial performance of SMEs.

Asuquo et al. (2018) examined the effect of lease financing on corporate performance of deposit money banks in Nigeria. Ex-post facto research design was employed for the study. Data were extracted from the annual reports of the various deposit money banks and analysed using Ordinary Least Square multiple regression technique. The study revealed a positive and significant relationship between finance lease; operating lease; equity finance; debt finance and corporate performance respectively.

Khalil et al. (2017) investigated the impact of lease finance on performance of SMEs in Pakistan. Content analysis was used with the help of a questionnaire. A total 52 SMEs were used as the population of the study. Regression analyses was used for data analysis. The study revealed a positive and significant association between Return on Assets (ROA) and lease finance. It also revealed a positive and significant connection between Return on Equity (ROE) and lease finance.

Kajirwa and Ikapel (2016) examined the effect of operating lease financing on financial performance of State-owned sugar manufacturing firms in Kenya. The study used the retrospective research design in collection of data. Regression analysis and Pearson product moment correlation coefficient were used for data analysis. The study revealed that operating lease finance negatively affects return on assets.

Wafula et al. (2016) examined the effect of leasing on the financial performance of the county government of Trans Nzoia. The study adopted a descriptive survey research design with a structured questionnaire. Multiple regression analysis was used for data analysis. The study revealed a positive and significant effect of finance lease on Financial performance (ROA).

Kibuu (2015) examined the effects of lease financing on the financial performance of companies listed in Nairobi securities exchange. Secondary data from annual financial reports and financial statements of 33 firms was used. The study revealed that lease financing had positive, but insignificant effects on ROA.

Orabi (2014) examined the impact of leasing decisions on the financial performance of industrial companies listed on the Amman Stock Exchange for Securities for the period (2001 - 2011). Parametric Test and Non-Parametric Tests were employed for data analysis. The study revealed that lease financing measured by lease index has a statistically significant effect on the profitability of companies measured by return on assets (ROA). Also, it revealed that lease financing measured by lease index has a statistically significant effect on the profitability of companies measured by net profit margin. In the same vein, Winfred (2014) examined the outcome of lease financing on the financial performance among the companies listed on the Nairobi Securities Exchange (NSE). The study revealed that there is no influence from lease financing on the financial performance.

3. Methodology

Ex-post facto research design was adopted for this study with a population of Seven (7) listed pharmaceutical companies in Nigeria as listed on the Nigerian Exchange Group in 2022. The entire population was used as the sample size of the study using the census approach. Data were retrieved from the annual reports of the listed pharmaceutical companies for the period 2015 to 2021. Multiple regression (Ordinary Least Square) analysis was used to test the formulated hypotheses computed with the aid of Stata12 statistical software.

Model specification

$$FP = f(LF + FMS + AGE + \mu) \dots \dots \dots (3.1)$$

Therefore, the model is

$$NPM_{it} = \alpha_0 + \alpha_1 LF_{it} + \alpha_2 FMS_{it} + \alpha_3 AGE_{it} + \epsilon_{it} \dots \dots \dots (3.2)$$

$$ROA_{it} = \alpha_0 + \alpha_1 LF_{it} + \alpha_2 FMS_{it} + \alpha_3 AGE_{it} + \epsilon_{it} \dots \dots \dots (3.3)$$

Operational Definition of variables

Return on Assets (ROA): Return on Asset is proxied by the effectiveness of the company in generating profits by exploiting its assets. It is calculated as

$$\text{Return on Assets} = \frac{\text{Profit Before Tax}}{\text{Total Assets}} * 100$$

Net Profit Margin (NPM): Net profit margin is proxy by the percentage of profit a company produces from total revenue. It is expressed as;

$$\text{Net Profit margin} = \frac{\text{Profit After Tax}}{\text{Total Revenue}} * 100$$

Lease Financing: Measures as the value of lease contract (right of use asset) as reported in the financial statement of listed pharmaceutical companies.

Firm Size (FMS): It is measured as the natural logarithm of a number (LN) of total asset of the company as stated in the financial statement.

Age: It is the date of incorporation of the listed pharmaceutical companies.

4. Results/findings

Table 1: Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
lf	41	159861.5	209496.4	0	703182
npm	41	-19.26317	41.92351	-137.55	44.49
roa	41	-2.602195	13.15669	-34.94	27.3
fmz	41	15.5122	1.306177	13	17
age	41	53.19512	17.86648	27	78

Source: Output from STATA version 12

The table 1 above shows that the average mean of lease financing (lf) generated by the sample firms is 159862 million with a minimum of 0 and maximum of 703182 million, and a standard deviation of 209496. Table 1 also shows that the average mean of net profit margin (npm) is -19.26 with a minimum of -137 and maximum of 44.5 %, and a standard deviation of 41.9. This shows that the net profit margin of sampled firm is poor when compared to its derived benefit from lease. Also, return on assets (roa) has an average mean of -2.60% with a minimum of -34% and maximum of 27.3% with a standard deviation of 1.3%. This shows that a low return on assets as represented by its average mean, minimum and maximum values. Furthermore, table 1 shows that the average mean of firm size (fsz) generated by the sample firms is 16 with a standard deviation of 1.69 and a minimum of 13 and maximum of 16. This shows that the

sampled firms are the largest in the pharmaceutical industry. Also, the average mean of Age is 53years with a standard deviation of 17.8 and a minimum of 27 years and maximum of 78 years.

Table 2: Regression Result on $NPM_{it} = \alpha_0 + \alpha_1 LF_{it} + \alpha_2 FMS_{it} + \alpha_3 AGE_{it} + \varepsilon_{it}$ (3.2)

Source	SS	df	MS			
Model	41543.4287	3	13847.8096	Number of obs =	41	
Residual	28759.8015	37	777.291933	F(3, 37) =	17.82	
Total	70303.2302	40	1757.58075	Prob > F =	0.0000	
				R-squared =	0.5909	
				Adj R-squared =	0.5577	
				Root MSE =	27.88	

npm	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
lf	-.0000465	.0000242	-1.92	0.062	-.0000955	2.51e-06
fmz	26.82843	3.821951	7.02	0.000	19.08442	34.57244
age	.2350584	.3047517	0.77	0.445	-.3824271	.852544
_cons	-440.4987	67.39079	-6.54	0.000	-577.0454	-303.952

Source: Output from STATA version 12

Hypothesis One

H₀₁ There is no significant effect of lease financing on net profit margin of listed Pharmaceutical companies in Nigeria.

Table 2 above reveals that the Model is fit $Prob>F = 0.0000$ and that the independent variables in the model explains 59% of the variation in net profit margin. The table further revealed a negative and insignificant effect of lease financing on net profit margin of listed pharmaceutical companies in Nigeria (p-value= 0.062). This implies that that a 1% increase in lease financing will bring about 0.00046% decrease in net profit margin. This led to the acceptance of (**H₀₁**) that there is no significant effect of lease financing on net profit margin of listed pharmaceutical companies in Nigeria.

Table 3: Regression Result on $ROA_{it} = \alpha_0 + \alpha_1 LF_{it} + \alpha_2 FMS_{it} + \alpha_3 AGE_{it} + \varepsilon_{it}$ (3.3)

Source	SS	df	MS	Number of obs =	41
Model	3695.83877	3	1231.94626	F(3, 37) =	14.12
Residual	3228.09689	37	87.2458618	Prob > F =	0.0000
				R-squared =	0.5338
				Adj R-squared =	0.4960
Total	6923.93566	40	173.098392	Root MSE =	9.3405

roa	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
lf	-.0000147	8.11e-06	-1.81	0.078	-.0000311	1.74e-06
fmz	8.045714	1.280458	6.28	0.000	5.451259	10.64017
age	.0870102	.1021002	0.85	0.400	-.1198643	.2938848
_cons	-129.6905	22.57776	-5.74	0.000	-175.4374	-83.94365

Source: Output from STATA version 12

Hypothesis Two

H02 There is no significant effect of lease financing on return on asset of listed Pharmaceutical companies in Nigeria.

Table 3 above reveals that the Model is fit $\text{Prob}>F = 0.0000$ and that the independent variables in the model explains 53% of the variation in return on asset. The table further reveals a negative and insignificant effect of lease financing on return on asset of listed pharmaceutical companies in Nigeria ($p\text{-value} = 0.078$). This implies that that a 1% increase in lease financing will bring about 0.000015% decrease in return on asset. This led to the acceptance of (**Ho2**) that there is no significant effect of lease financing on return on asset of listed pharmaceutical companies in Nigeria.

5 Discussion of findings

The study revealed a negative and insignificant effect of lease financing on net profit margin which led to the acceptance of (**Ho1**) that there is no significant effect of lease financing on net profit margin of listed pharmaceutical companies in Nigeria. This finding is in line with the finding of Winfred (2014) that concluded that there is no influence from lease financing on the financial performance. This finding is in contradicts the finding of Orabi (2014) that revealed that lease financing measured by lease index has a statistically significant effect on the profitability of companies measured by net profit margin.

Also, the study revealed a negative and insignificant effect of lease financing on return on assets that led to the acceptance of (**Ho2**) that there no significant effect of lease financing on return on assets of listed pharmaceutical companies in Nigeria. This finding is in line with the finding of Kibuu (2015) that revealed that lease financing had positive, but insignificant effects on ROA. It contradicts the finding of Wafula et al. (2016) that revealed a positive and significant effect of finance lease on Financial performance (ROA). The finding further contradicts the finding

Atseye et al. (2020) that indicated that lease financing (LFN) had a positive and insignificant impact on ROA.

6 Conclusion

The economic benefits of leasing can be derived from the firm's choice of leasing relative to borrowing and acquiring the asset. The essence of leasing is reflected in the proposition that leasing provides customized financing with potentially unique cash flow and tax features. The leasing decisions concern whether the firm should lease equipment, or borrows money and buy the equipment. Pharmaceutical companies as essential player in the economy needs to utilize this option in actualizing its equipment needs. The study therefore concluded from the analysis and findings that lease financing has insignificant effect on financial performance of listed pharmaceutical companies in Nigeria.

7. Recommendations

The following recommendations were made in respect to the above findings

- i. Pharmaceutical companies in Nigeria should increase the proportion of lease finance in their operations as evidence suggests it has a negative and insignificant effect on financial performance (net profit margin).
- ii. Policymakers should increase tax shield for leasing products so as to encourage firms to make use of leasing financing rather than having high credits as it has shown that most pharmaceutical companies are yet to appreciate lease financing as an alternative source of financing.

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