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EFFECT OF FIRM ATTRIBUTES ON THE GROWTH OF HEALTHCARE COMPANIES LISTED ON THE NIGERIAN EXCHANGE GROUP

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Abstract

The Nigerian healthcare industry is poorly performing compare to global standards and remains heavily dependent on imports especially Consumer Drugs and Vaccines. It is estimated that total pharma market has come down from $ 717 million ₦293.97B in 2016 to $ 607 million ₦248.87B in 2017 with negative growth of 15.6%. In light of this, the study examined the effect of firm attributes on the growth of listed healthcare companies in Nigeria from the period of 2013-2022. The population of the study consisted of eleven 11 healthcare companies listed in Nigeria, three 3 healthcare companies were later filtered out reducing the total population to eight 8 adjusted population. Secondary data were extracted from the annual financial reports of the eight 8 adjusted population from 2013 to 2022. The dependent variable which is firm growth was proxied by changes in sales of the companies, while firm attributes was proxied by leverage, profitability, liquidity and firm size. After all the necessary diagnostic tests were conducted the outcome supported the use of the Random Effect regression analysis technique. The regression result shows that profitability and liquidity have positive and significant effect on the growth of healthcare companies in Nigeria. Therefore, the study concluded that profitability and liquidity are the major determinants of healthcare companies' growth in Nigeria. In line with the conclusion, the study recommended that the management of the listed healthcare companies in Nigeria should increase their profitability to enhance their growth. Also, the management of the listed healthcare companies in Nigeria should maintain a reasonable ratio of liquidity to ensure their growth.

Keywords: Firm Attributes, Firm Growth, Healthcare Companies, and Nigeria.

1.0 Introduction

Firm growth has become the most important topic of interest to corporate organization, policy makers and economic researchers as it provides essential understandings of one of the most important measures of company performance, its importance in job creation as well as one of the most important economic elements (Lyeonov *et al.*, 2021). Therefore, firms' growth assumption is projected to be supported by the available resources, diversification of firms, cheap financing costs and management efficiency. Furthermore, firm growth is important for the creation of wealth, employment and economic development in every country, industrial concentration and overall economic activity with implications on the regulation policies (Hall, 2015).

In the past few decades, technological changes have proven to either be sustainable or disruptive to companies all over the world. So, firms usually diversify their capital to achieve the future goals that are directed towards growth factors and value creation in an attempt to survive and attract new investors and creditors. However, firm's growth takes different aspects either in assets, profit, manpower or sale. Business grows from micro to medium and to large. Medium Enterprises (ME) growth can be defined as increase in size of MEs in terms of sales growth, employment growth, market share growth, and firm size growth (Peter, 2011).

The healthcare subsector is very important not only for securing the health of the citizens, but also for providing a great source of national income through medical supplies exportation and local sales. Good health is an essential element of quality of life, whereas the access to health services is a fundamental right. The generalized access to quality health services depends on the economic development level and on the allocation and use of available resources (Artiga & Hinton, 2019). In Nigeria, the vision of becoming one of the leading largest 20 economies of the world by the year 2020 is closely tied to the development of its human capital through the health sector (Babatunde *et al.,* 2020). In any nation, the healthcare sector shows an important role in the overall health of its population. Access to healthcare remains a significant global issue, with many people around the world lacking access to basic healthcare services. According to World Health Organization (WHO), approximately half of the world's population still does not have full coverage for essential health services and has significantly retarded the growth rate of health industries (World Health Organization [WHO], 2021).

Furthermore, the Nigerian healthcare industry is poorly performing compare to global standards and remains heavily dependent on imports especially Consumer Drugs and Vaccines. It is estimated that total pharma market has come down from $ 717 million (N293.97B) in 2016 to $ 607 million ₦248.87B in 2017 with negative growth of 15.6% (Pharmexcil, 2018). The healthcare sector in Nigeria has seen a volatile and difficult business environment exacerbated by the recent depreciation of the Naira against the US dollar which has slowed its growth pace. Increase in production costs has also led to increase in drug prices with serious implications for production and demand for the products (Nigerian Bureau of Statistics [NBS], 2020).

Empirical evidence has shown that there are several studies on the growth of healthcare companies in the developed societies compared to those of the developing societies like Nigeria (Ali & Sayed, 2020; Lyeonov *et al.,* 2021; Zhou *et al.,* 2020). Despite the importance of the healthcare companies to the wellbeing of the citizens, there are little studies on the factors that influence the growth of these companies in Nigeria. With most of the studies concentrating on financial performance of the healthcare companies in Nigeria (Abu & Bamidele, 2022; Arumona *et al.,* 2019; Sani & Abubakar, 2022). This study will therefore contribute to the body of knowledge in this area by examining the effect of firm attributes on growth of listed healthcare companies in Nigeria.

2.0 Literature Review

The conceptual, empirical, and theoretical reviews of the various variables that were included in the study's model are contained in this section of the study.

Firm growth

Penrose (2009) defines firm growth as an increase in a specific amount, such as an increase in sales, production, or exports. Second, Penrose describes business growth as a specialized development process, comparable to biological processes, that results in a size or quality rise. Firm growth is the process by which businesses seek out market opportunities and acquire and

accumulate the resources needed to capitalize on those opportunities, (Dosi, 2019). Inconsistencies is a problem because different measures lead to different levels of firm growth, making policy recommendations difficult to formulate (Coad, 2010). Moreover, the elements that drive business growth differ depending on the specified firm features. Growth opportunity is the probability of the firm to grow (Hermuningsih, 2013).

It is difficult to define growth firms. This is because there is no visible metric for measuring the firm's growth. Most authors utilize employment and/or sales (Delmar, 2006), but other indicators have been employed as well, including productivity, revenue, value added, profit, market share, market value, and asset growth. (Daunfeldt *et al.,* 2014). Growth can also be quantified in both relative and absolute terms. The former is skewed toward small businesses, whereas the latter is skewed toward major businesses (Delmar & Davidsson, 2006). In any situation, it's unclear which criterion to employ or whether it should be described in relative terms. We shall use sales to measure firm growth for the purposes of this paper. This is so because there is an emerging consensus that if only one indicator is to be chosen as a measure of firm growth, the most preferred measure should be sales (Davidsson & Wiklund, 2017).

Several measurements have been used to proxy firm growth by different scholars in the literature. Some of the popular measures of firm growth are: Sales growth rate, Employee growth rate, Asset growth rate, Profitability growth rate, Market share growth rate, Return on assets (ROA), Return on equity (ROE), etc. (Audretsch et al., 2020; Bui et al., 2020; Silva et al., 2019). In this study firm growth was measured using sales growth rate (Audretsch et al., 2020; Bui et al., 2020). This metric is used because healthy sales growth is attractive to investors, signaling potential profitability and sustainability, which can lead to further investment and expansion.

Leverage

Leverage was defined by Senan *et al.* (2021), as the ratio of total liabilities to total assets. Leverage finance is the practice of supporting a company or business entity with debt in order to improve its growth or financial performance. A company may use leverage finance to achieve a specific or temporary goal, such as acquiring another company, effecting a buy-out, purchasing shares or funding a one-time dividend, or investing in self-sustaining cash-generating assets (Goodluck & Iliemena, 2022). The decision to finance or leverage a company is a crucial managerial decision since it can affect the firm's value, risk, and market value. The debt-to-equity ratio has an impact on dividends and risk for shareholders. This has an impact on the firm's cost of capital and market value (Pandey & Sahu, 2017).

Accordingly, part of the growth management challenge is to identify an appropriate degree of financial leverage for firms. Given the same amount of equity investments, equity holders keep any extra profit generated by debt capital after interest payments, resulting in a higher return on equity from the increased profit supplied by debt capital through tax savings, so maintaining profit within the company. Leverage has been measured in several ways by many authors such as debt to equity, and debt to assets (Blay *et al.,* 2019; Seran, 2022). This study adopted debt to assets as the measurement of leverage. This is because leverage ratio helps to assess a firm’s financial stability and long-term viability. Firms with lower ratios are generally viewed as less risky to investors and creditors. Many research scholars have examined the effect of leverage on the growth of companies. Akhtar et al. (2022); Anto (2019); Gamlath (2020); Markonah *et al*. (2020); and Wahyudi (2020); Wangsih et al. (2021), in their studies established that leverage has a significant effect on the growth of firms, while the studies of Dzafic and Polic (2019);

Hamouri *et al.* (2018) found no relationship between leverage and firm growth. In line with this the first null hypothesis of the study was formulated as thus:

$H0_1$: *leverage has no significant effect on the growth of listed healthcare companies in Nigeria*

Profitability

Profitability is defined as the earnings ability of a corporate organization. It is a typical part of a company's value creation and a very important stride toward stock holders' wealth generation. As posited by Bakti and Nengzih (2023), the ability of an entity to make gains by using its own resources, such as assets, money or goods is known as profitability. Iyafekhe and Osemwegie-Ero (2023), stated that profitability refers to the end product of different procedures and managerial choices, in which these plans and choices are related to the sourcing and use of money so as to carry out the firm's tasks that have been summarized in the statement of objectives and its fundamentals denoted by financial ratios. According to Agboma (2021), Profitability can simply be termed as the company's capability to create earnings by the efficient and effective deployment of existing resources over a given period of time. It reveals the financial circumstance and success of a firm within a defined time period.

Profitability determines a company's long-term growth possibilities. Profitability usually allows for more investment, and excellent investments lead to increased firm growth. Although reinvesting all of a firm's income is not required, we believe that all enterprises will reinvest at least a portion of their profits. Profitability has been measured as either the ratio of profit after tax to total assets or profit before tax over total assets (Bakti & Nengzih 2023; Dahiyat, 2021). In this study, profitability is measured as profit after tax to equity as this reflect the net earnings available to shareholders of the firm. Several studies have assessed the effect of profitability on the growth of firms. The study of Iskandar (2021); Loi and Khan (2012), Nurwulandari (2021), found no relationship between profitability and firm growth, whereas, Afinindy *et al.* (2021); Dang *et al.* (2019); Novitasari and Sunarto (2021); Reschiwati et al. (2020), Yadav *et al.* (2021), in their studies established a significant relationship between profitability and firm growth. Therefore, the study stated its second null hypotheses as follows:

$H0_2$: *profitability has no significant effect on the growth of listed healthcare companies in Nigeria*

Liquidity

Liquidity can be defined as the balance of assets in the form of cash or readily convertible cash (current assets) and obligations in the form of cash or readily convertible cash (current liabilities) (Dahiyat, 2016). Liquidity is also described as the ability to provide funds on demand to fulfill day-to-day needs (Muthike, 2017). Liquidity ratios are a set of ratios used to calculate a company's liquidity position. These ratios aid in determining whether a company will be able to satisfy its short-term financial obligations. According to Dadepo, and Afolabi, (2020) liquidity is a key financial indicator that determines whether a company can satisfy its short-term obligations without suffering unfavorable losses. The liquidity ratio is useful in determining a company's level of liquidity management. Any firm with a weak liquidity position, on the other hand, would frighten suppliers and creditors, particularly banks, which frequently place minimum liquidity limitations in their loan agreements with firms, as well as shareholders, who would fear that the firm is experiencing growth problems. Several authors have measure liquidity in different ways. Such as current ratio, cash ratio, quick ratio, current assets to current liabilities among others (Egiyi & Agu, 2023; Nworie *et al.*, 2023; Nworie &

Ofoje, 2022). However, this study made use of the current assets to current liabilities as the proxy for liquidity because it helps to assess the financial health of a firm.

Previous studies have reported contradicting results regarding the relationship between liquidity and firm growth. Reschiwati *et al.* (2020); Susilo (2022), in the studies discovered significant effect of liquidity on firm growth. While, Loi and Khan (2012); Putro (2021), found no relationship between liquidity and firm growth. Based on this, the third null hypothesis formulated in the study is as thus:

$H0_3$: *liquidity has no significant effect on the growth of listed healthcare companies in Nigeria*

Firm size

In the literature, firm size has been characterized in a variety of ways, including total assets, scope of operations, and personnel count. According to Zuhroh (2019), firm size is a range of levels used for measuring the size of an organization by considering various models such as: stock market value, total assets, total employees, total sales and the like. Sudrajat and Setiyawati (2021), posited that firm size is the extent to which a company can be reflected or valued by entire assets, total profit, total sales, tax expense and others. Corporate size reveals how huge an entity is in assets, number of investors and staff. Big firms have more investors in their organizational field. Therefore, they are vulnerable to examination by many stakeholders in the corporate environment (Kaoje & Auwal, 2020). The study measured firm size as the natural log of total assets of the firm the total assets is used because it is believed that larger companies are thought to have more resources at their disposal and thus the financial means to commit to multiple investment opportunities. These many investment alternatives may result in firm expansion. However, for companies that grow to be extremely large, the impact of size may be negative due to bureaucratic and other factors. Hapsoro and Falih (2020), Radja et al. (2020), Stancu *et al*. (2021), Sudiyatno et al. (2020), Sudrajat and Setiyawati (2021), established a significant association between firm size and firm growth. While, Bon and Hartoko (2022), Margono and Gantino (2021) found no significant relationship between firm size and firm growth. In line with this, the study formulated its fifth null hypotheses as thus:

$H0_4$: *firm size has no significant effect on the growth of listed healthcare companies in Nigeria*

Theoretical framework

Many theories have been considered by previous researchers to underpin the study of firm growth. However, this study was conducted using pecking order theory, and resource dependency theory.

Pecking order theory

According to the pecking order theory, firms (companies) prioritize their financing sources based on the principle of least effort. This means that at the start-up stage, companies rely on internal financing. They employ debt financing when this is depleted, and when debt financing is no longer an option, they turn to external equity to raise money. Donaldson (1961) proposed this idea, which was later updated by Myers and Majluf (1984). Internal finance is the most cost-effective option to raise extra cash, which explains this tendency. Small healthcare firms often have limited access to external financing. Small healthcare firms with little growth and reputation, we believe, should have less recourse to external financing. However, when the healthcare firm grows older, more experienced, and shows better growth, banks will have more

faith in it. The related variables to this theory are leverage and profitability. According to the pecking order theory, companies prefer to use their internal source of finance in funding their operations and investments, however, in the case of low earnings or when internal financing is no longer an option, the companies turn to external sources of capital to raise money to finance their activities which will improve their productions and growth.

Resource dependency theory

The Resource-Based Theory (RBT) was developed by Barney (1991) in order to explain the connection between unique resources under the purview of a firm and the competitive advantage that the firm enjoys within the industry it operates. It is one of the theories used in explaining the importance of resources to a firm Barney (1991), underpins the study. RBT explains firm resources and innovativeness as the major drivers of firm growth. The resource-based theory highlights the role of a firm's internal characteristics and its environment in determining. It postulates that sustained and continual competitive advantage results from strategically combining a firm's heterogeneous resources, including distinctive capabilities, knowledge, skills and processes (Robson *et al.*, 2009). The cornerstone of RBT, according to Chiang and Yan (2011), ensures that company growth, competitive advantage, and sustainability are linked to identifiable sets of productive resources and capabilities. Two basic assumptions underpin the idea. To begin, it is thought that enterprises gain a competitive advantage by combining their various resource bundles. Second, resources that are difficult for competitors to access due to the high cost of producing, acquiring, or employing them are thought to provide a competitive advantage. Healthcare firms operate in the sector that differentiate them from other firms in the service sector, within the healthcare, the resource available to firms give them a competitive edge over other firms in the healthcare sectors.

3.0 Methodology

The Ex-post factor research design was adopted in the study. This is so because the study examined the effect of corporate attributes and firm growth of listed healthcare companies in Nigerian. The design is considered appropriate because it is good in determining the relationship and impact of corporate attributes and firm growth. Furthermore, positivism as a research philosophy served as the foundation for this investigation. Research-related philosophers have emphasized that the researcher's ontological and epistemological stance will direct the study as a whole (Araka *et al.*, 2021); as a result, positivism served as the research paradigm for this study. The studied population consisted of the 11 listed healthcare companies on the Nigerian Exchange Group (NXG) and are still on the Nigerian Exchange Group as at December 31, 2022. The study used the adjusted population of 8 listed healthcare companies after three (3) companies were removed from the total study population, with a secondary data extracted from the annual reports and accounts of the eight (8) healthcare companies for ten (10) years period from 2013-2022. The study used the Random Effect regression technique of data analysis to analyze the study data.

Variable Measurement

The following is a presentation of the measurements for the dependent and the various independent variables used in the study:

Table 1 Variable Definition and Measurement

Variable	Acronyms	Measurement	Source
Firm growth	GRW	Firm growth is measured as change in turnover	Davidsson, and Wiklund, (2017)
Leverage	LEV	Total liabilities over total assets	Dzafic and Polic (2019)
Profitability	PROF	Return on equity (ROE) is measured as Profit after tax (PAT) divided by Total Equity	Dahiyat (2016)
Liquidity	LQD	The ratio of firm's current assets to current liabilities	Mateev and Anastasov, (2010)
Firm size	FSIZE	Natural logarithms of firm's total assets	Driffield *et al.* (2005)

Source: Researcher's compilation from literature reviewed, (2024).

Model Specification

The variables incorporated into the model of the study includes: leverage; profitability; liquidity, and firm size to assess their respective effect on the growth of listed Healthcare companies in Nigeria. Hence, the study's multiple linear regression function was formulated as follows:

GRW = *f* (Firm Attributes)

$GRW_{it} = \beta_0 + \beta_1 LEV_{it} + \beta_2 PROF_{it} + \beta_3 LQD_{it} + \beta_4 FSIZE_{it} + Є_{it}$

Where:

GRW = Firm Growth

LEV = Leverage

PROF = Profitability

LQD = Liquidity

FSIZE = Firm Size

β_0 = Constant

β_1 to β_4 = Coefficient of the respective independent and control variables in the model

It = Panel Indicator

Є = Error Term

Descriptive Statistics

The descriptive statistics of each of the variables in Table 2 shows the Mean, Standard deviation, Minimum and Maximum values. Descriptive analysis of these variables is presented and discussed as thus.

Table 2 Descriptive Statistics

Variable	Obs	Mean	StdDev	Min	Max
GRW	96	0.1680	0.1499	-0.5304	0.6288
LEV	96	0.4597	0.1933	0.0254	0.8804
PROF	96	0.1326	0.1633	-0.4886	0.7854
LQD	96	1.2971	0.6718	0.1476	2.5937
FSIZE	96	8,820,000	9,280,000	389,000	43,000,000

Source: Researcher's Computation from Stata Output, (2024).

Table 2 shows that the dependent variable represented by firm growth (GRW) has a mean value of 0.1680 and a standard deviation of 0.1499. This result suggests that the firm growth of listed healthcare companies in Nigeria on average is 16.80% during the period under review. The result indicates a low level of deviation from the mean value of firm growth recorded within the period of the study. Furthermore, the minimum and maximum value of firm growth stood at -0.5304 and 0.6288 respectively. These figures imply that some of the listed healthcare companies in Nigeria reported a drop in their growth by-0.5304 and a maximum growth in turnover by 0.6288 within the period of the study.

Also, table 2 indicates that the average value of leverage across the studied companies 45.97% with a standard deviation of 19.33%, indicating there is a low deviation. With a minimum and maximum value of 2.54% and 88.04% respectively. Similarly, the average level of profitability of the listed healthcare companies in Nigeria was found to be 13.26%, and a standard deviation of 16.13%, which shows a high deviation from the mean. the minimum and maximum values in respect to profitability is -0.4886 and 0.7854, revealing that certain healthcare company recorded a loss of -48.86% and a maximum profit of 78.54% on each ₦1 investment made by the companies.

Furthermore, the average of liquidity is 1.29, and a standard deviation of 6.72 which shows high deviation; with a minimum and maximum value of 0.15, and 2.59 respectively indicating that some of the healthcare companies have a very low liquidity ratio of 0.15 and the highest liquidity ratio of 2.59. Finally, firm size has the mean value of 8,820,000, indicating that the average size of the companies under study is 8,820,000 and a standard deviation of 9,280,000 which shows a high deviation from the mean of the size of the listed health care companies in Nigeria. The minimum and maximum values stood at 389,000 and 43,000,000 respectively.

Correlation Matrix

The correlation matrix reveals the relationship that exists between the dependent variable and each of the independent variables as well as the relationship between the independent variables themselves. The summary of the correlation coefficients of the variables of the study are shown in Table 4.2

Table 3 Correlation Matrix

Variable	GRW	LEV	PROF	LQD	FSIZE
GRW	1.0000				
LEV	-0.0212	1.0000			
PROF	0.3354	0.0648	1.0000		
LQD	0.2776	0.1105	0.2260	1.0000	
FSIZE	0.2516	-0.2863	-0.1618	0.2137	1.0000

Source: Researcher's Computation from Stata Output, (2024).

Table 3 presents the correlation result between corporate attributes and firm growth of listed healthcare companies in Nigeria. With correlation coefficients of -0.0212 the table shows a negative relationship between leverage and firm growth of the listed health care companies in Nigeria. This further means that an increase in leverage will result to decrease in the growth of the listed health care companies in Nigeria within the period of the study. Also, Table 3 shows a positive relationship between profitability, liquidity, firm size and firm growth of the listed health care companies in Nigeria. This means that an increase in these variables will lead to a corresponding increase in the growth of the listed healthcare companies in Nigeria. Similarly, the correlation matrix confirms that none of the independent variables of corporate attributes have a coefficient of correlation greater than 80%. This suggests that the independent variables employed in the study may not be multi-collinear (Gujarati, 2004). However, the VIF was also conducted to further confirm the assertion as analyzed using the Multi-collinearity Test.

Multi-collinearity Test

A multi-collinearity test was conducted to find out if two or more of the independent variables included in the study had high inter-correlation, as this could have an effect on the validity of the study's results and how they should be interpreted.

Table 4 *Variance Inflation Factor and Tolerance Value*

Variable	VIF	1/VIF
LEV	1.09	0.9154
PROF	1.07	0.9353
LQD	1.09	0.9144
FSIZE	1.15	0.8733
Mean VIF		

Source: Researcher's Computation from Stata Output, (2024).

Table 4.3, shows the VIF and tolerance values which were employed as an advance measure to check the presence of multi-collinearity among the explanatory variables of the study. The values of VIF and tolerance level were confirmed to be simultaneously less than 1 and 10 respectively which suggests that there is a nonexistence of multi-collinearity among the explanatory variables used in the study (Gujarati, 2004).

Diagnostic Test

The study determined its best estimates to test the hypotheses earlier formulated in the research by conducting different diagnostic tests to select the suitable technique for the study. It began with the multi-collinearity test to dictate the presence of multi-collinearity between the variables of the study, followed by Hausman specification test to select between Fixed and Random Effect Models which turned out not to be significant as shown by the chi^2 of 3.81 and p-value of 0.4328 which favored the choice of the random effect model. The study further carried out the Random Effect test using the Breusch and Pagan Lagrange Multiplier (LM) test to select between the Random Effect Model and the Ordinary Least Square (OLS) technique which was discovered to be significant as shown by the $chibar^2$ of 166.97 and a p-value of 0.0000 which supported the choice of Random Effect Model (REM) technique. The study also conducted a normality test on the residuals of the model using Shapiro-Wilk and it was discovered not to be significant as shown by the p-value of 0.5960 and this indicates that the data of the study are normally distributed. More so, heteroskedasticity test was conducted and it turned out to be significant at 5% which suggests the presence of heteroskedasticity as revealed by the chi216.62 and a p-value of 0.0343 which violated the homoscedasticity assumption. Therefore, to correct this, the study conducted the Robust Random Effect (RRE) regression model which was used to test the hypotheses formulated in the study.

Presentation and Interpretation of Regression Result

The result obtained from the robust random effect regression is presented in Table 5, as follows:

Table 5 ***Summary of Robust Random Effect Regression Result***

GRW	**Coeff**	**Std.Err**	**t-value**	**p-value**
LEV	-0.0610	0.0447	-1.37	0.172
PROF	0.2232	0.0407	5.48	0.000***
LQD	0.0883	0.0326	2.71	0.007***
FSIZE	0.1450	0.1140	1.27	0.203
Cons	-0.8510	1.1138	-0.76	0.445
Wald Chi (4)	36.15		Hausman	0.4328
R-square	0.3401		Chi2	3.81
p-value	0.0000		LMT	0.0000
Obs	96		Chi2	166.97
Heter Test	0.0343		Normality	0.5960
Chi^2	16.62			

Source: Researcher's Computation from Stata Output, (2024).
****p<0.01, **p<0.05, p<0.1**

From Table 5, the R-square (R^2) which is the coefficient of determination is 0.3401 which means that all of the independent variables selected for this study explain the changes in the dependent variable by 34.01%. This indicates that the firm attributes such as: leverage; profitability; liquidity; and firm size incorporated into the model of the study explain the variation of the dependent variable of growth of the healthcare companies in Nigeria by 34.01%

why the remaining 65.99% is explained by other factors not considered in this study. Also from the Table 5, it can be seen that the overall model is well fitted as indicated by the Wald Chi of 36.15 at a 1% level of significance as shown by the p-value of 0.0000.

GRW = -0.8510 - 0.0610LEV + 0.2232PROF + 0.0883LQD + 0.1450FSIZE

The regression result in Table 5 indicates that leverage has a coefficient of -0.0610, t-value of -1.37 and a p-value of 0.172 which is not significant. This implies that leverage has no significant effect on the growth of listed healthcare companies in Nigeria. This could be due to the fact that firms with sufficient resources most especially those with high level of profitability will choose to use their available resources before considering borrowing funds from the banks and other creditors. The result is in line with the tenant of pecking order theory. To this end, the study fails to reject the first null hypothesis which assumes that leverage has no significant effect on the growth of listed healthcare companies in Nigeria. The finding contradicts the studies of Gamlath (2020); Markonah *et al*. (2020); and Wahyudi (2020), who found a significant relation between leverage and firm growth. Whereas, it supports those of Dzafic and Polic (2019); Hamouri *et al.* (2018) who found no significant relationship between leverage and firm growth.

Also, Table 5 indicates that profitability has a coefficient of 0.2232, a t-value of 5.48 and a p-value of 0.000 which is statistically significant at 1%. This suggests that, a rise in profit will increase in growth of the listed healthcare companies in Nigeria. This may be because companies with high profitability will have excess reserve to enable plough back to the business which will facilitate the operations and growth of the companies. Also, the finding supports the pecking order theory of capital structure. Give this the study rejects the second null hypothesis which states that profitability has no significant effect on the growth of listed healthcare companies in Nigeria. The result is in line with the findings of Afinindy *et al.* (2021); Novitasari and Sunarto (2021); Yadav *et al.* (2021), who established a significant relationship between profitability and firm growth. While it contradicts the study of Loi and Khan (2012), who found no relationship between profitability and firm growth.

The result also reveals that liquidity has the coefficient of 0.0883, t-value 0f 2.71 and a p-value of 0.007 which is statistically significant at 1%. This means that liquidity is a major factor that influence the firm growth of listed health care firms in Nigeria. This could be as a result of the fact that, when a firm has high liquidity ratio it has higher chances to be able to settle it day-to-day activities which could facilitate the growth of the firm. Therefore, the study reject the third null hypothesis which assumes that liquidity has no significant effect on the growth of listed health care companies in Nigeria. The result confirms the findings of Reschiwati *et al.* (2020); Susilo (2022), who found significant relationship between liquidity and firm growth, however the finding contradicts the studies of Loi and Khan (2012); Putra (2021), who established no relationship between liquidity and growth of firms.

Finally, the regression result shows that firm size has a coefficient of 0.1450 a t-value of 1.27 and a p-value of 0.203. This suggests that the growth of listed healthcare companies in Nigeria is not significantly impacted by firm size. This could be due to the fact that some large firms may have grown beyond their business cycle and may start experiencing decline rather than growth in a particular line of business. To this end therefore, the study failed to reject the fourth null hypothesis which assumes that firm size has no significant effect on the growth of listed healthcare companies in Nigeria. The finding of this study is contrary to the studies of Stancu *et al*. (2021), who reported a positive and significant relationship between firm size and firm

growth. However, the finding is in line with the studies of Afinidy *et al.* (2021); Reschiwati *et al.* (2020), who found no association between firm size and firm growth of companies.

5.0 Conclusion and Recommendations

The study concentrated on how certain firm attributes affect the growth of listed healthcare companies in Nigeria. The study made use of secondary data extracted from the audited annual reports and accounts of the eight (8) selected listed healthcare companies in Nigeria from 2011-2022. The total population of the study consisted of eleven (11) listed healthcare companies which was later filtered to eight (8) healthcare companies. Moreover, the Random Effect regression technique was used in the analysis of the data of the study. Firm growth (GRW) was the dependent variable in the study, whereas leverage, profitability, liquidity, and firm size were the independent variables used in the study. The study established that profitability and liquidity have significant effect on the growth of listed healthcare companies in Nigeria, while leverage and firm size had no effect on the growth of listed health care companies in Nigeria.

In line with the finding, the study concluded that profitability and liquidity had a positive and significant effect on the growth of listed healthcare companies in Nigeria. Companies with high profitability often have more internal capacity to expand their operations and investments which will increase their growth than companies with low or no profitability. Also, companies with high liquidity ratio have the able to increase their operations due to their ability to settle their debts as at when due, this will improve the operations and growth of the companies. Finally, the growth of the listed healthcare companies in Nigeria is not influence by the leverage and size of the companies.

Therefore, the study recommended that the management of the listed healthcare companies in Nigeria increase their profitability to enhance their growth. This is because a firm with high level of profitability will have adequate resource available to diversify into other related and/or unrelated businesses which will ensure the expansion and growth of the firm. Similarly, it is recommended that these companies maintain a high level of liquidity to be able to settle their short-term obligations which will improve their business growth. A firm with high liquidity level signifies the ability of such a firm to pay its debts as they fall due. This will allow the firm gain the confidence of the credit and make it possible to get the needed funds to run the operations of the firm which in turn ensure the growth of the firm.

Implication of the Study

The implication of the study is that it fills the gap in literature by examining the effect of firm attributes on the growth of listed healthcare firms in Nigeria. Also, the study provides information on the effect of leverage, profitability, liquidity and firm size on the growth of listed healthcare firms in Nigeria which will provide a guide for future researchers in this area. Furthermore, the study has practical implication as the result of the study will assist management and regulators to identify those firm attributes that could influence the growth of healthcare firms in Nigeria.

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