

Influence of Liquidity and Profitability on Profits Growth of Nigerian Pharmaceutical Firms

Odukwu Victory Chika^{1*}, Eke Promise², Igwoba Solomon³, Egule Victoria Werikum⁴

Department of Accounting, Faculty of management sciences, Ignatius Ajuru University of Education, Rumuolumeni, Port Harcourt, Rivers State, Nigeria

victorychika0519@gmail.com^{1*}, promiseeke40@gmail.com², igwoba@gmail.com³,

victoriaegule@gmail.com⁴



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Abstract

Purpose: This study sought to assess the influence of liquidity ratio and profitability ratio on profit growth of pharmaceutical firms in Nigeria.

Method: The researcher employed ex-post facto research strategy with a population of six (6) selected listed pharmaceutical firms in Nigerian stock exchange market. The study used 30 firm yearly observations from the six pharmaceutical firms listed in Nigeria.

Results: The results of the study revealed that the current ratio's liquidity ratio and the quick ratio's liquidity ratio had a statistically significant link with profit growth rate. The profit growth rate has no statistically significant link with the profitability ratio of net profit margin and return on asset.

Limitations: The discoveries of this study is limited to pharmaceutical firms in Nigeria and may not be adopted elsewhere.

Contribution: This study is anticipated to help pharmaceutical companies manage their cash and cash equivalents while also improving the performance of the business.

Keywords: *Liquidity ratio, Profitability ratio, net profit margin, return on asset, profit growth*

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1. Introduction

Pharmaceutical companies like any other business in the world, strive to provide excellent service to their customers while also increasing profits. Profit in this perspective is a reflection of how well an entity's activities and tasks are carried out. The profit that the enterprises will make is influenced by their activities or operations. Profit growth is important for the sustainability of the company. At this particular time, covid-19 is a problem everywhere. So the pharmaceutical industry is being encouraged by the government to continue to build a good and more integrated structure. Profit growth can be analyzed using financial ratios ([Sitohang & Siagian 2021](#)). The financial ratios used in this study are liquidity, profitability, and company growth. Profit growth that is in line with the economy is a healthy profit growth. Higher liquidity indicates that a firm is depending on debt to fund its productive assets, which is often a red flag that the company is a risky venture ([Odukwu & Eke 2022](#)). It could also suggest that the firm's income will be volatile after a certain time, that investors will have to wait a long time to get a considerable amount of profit, or that the company will become insolvent or go bankrupt shortly. These criteria are also used by creditors to assess whether or not to give loans to firms.

If a corporation's economic leverage ratio is too high, it suggests it's spending too much of its cash flow on debt repayment and is more likely to fail on loans. A lower leverage ratio usually indicates a financially sound company with a consistent revenue stream. An outstanding financial leverage ratio advises potential investors and credit reporting agencies that an organization poses negligible risk and is potentially worth an investment, even if the corporation behind it is in heavy debt. Return on Asset

is a fundamental profitability statistic that gauges a company's profit per naira of assets. It demonstrates the company's capacity to create profits before adopting debt. The return on average total assets (ROA) is a performance statistic that evaluates net earnings to total asset ratio over a period. To put it simply, the return on assets ratio assesses how effectively a corporation can manage its assets to generate profits.

Liquidity refers to a company's capacity to satisfy short-term obligations with its most liquid resources ([Asian, 2015](#)). Liquidity measures how easily a firm can pay its payments and liabilities in the coming year, particularly if it must transform its assets into cash to do so. The nature and size of an enterprise, growth and expansion activities, product cycle, manufacturing policy, and turnover of circulating resources, credit terms, production efficiency, and pricing level variations are all elements that affect a firm's financing needs ([Asian, 2015](#)). Liquidity is a metric used to assess a firm's potential to manage short-term debts. Liquidity influences the capital structure because a company with strong cash flow can repay the short-term borrowing, which leads to a reduction in overall debt and, as a result, a smaller capital structure. According to the Pecking Order idea, managers seek to hire operating income first, then debt, and ultimately the selling of shares issued for financing ([Septiani & Suryana 2018](#)). According to the signaling principle, a firm's capacity to satisfy its short-term debts will expect a positive response from the share market, causing the company's worth to rise, hence liquidity impacts the company's financial performance ([Valuereschwati 2020](#)).

According to [Owolabi et al \(2012\)](#), profitability refers to a company's ability to create revenue that exceeds the attributable expenses of creating income from all of its activities and operations. Therefore, Profit is the result of a successful integration and deployment of corporate resources to its operating activity. Profitability is one of the most important indicators of financial performance in the pharmaceutical industry, as it is in other industries. Although profitability does not always demonstrate efficiency, some factors like the health of the economy, currency value, macroeconomic variables, as well as other factors. Financial performance, according to [Odukwu and Eke \(2022\)](#), is the capacity of engaging in financial activity that generates profit that would assist the business to flourish. Financial performance, in a general context, measures the degree to which desired outcomes are being met or have been met. It is the process of calculating the monetary value of a company's policies and operations. Financial performance is defined as a company's ability to achieve its financial goals. The investor's return and accounting yields are two important metrics of financial performance ([Odukwu and Eke 2022](#)).

However, when a Firm's profit is aggrandized, survival and development is improved at very high frequency. Therefore, analyzing the liquidity ratio and profitability ratio of the company's financial statements is one of the most potent methods of measuring profit growth ([Odukwu & Eke 2022](#)). Liquidity refers to a company's capacity to repay short-term debt ([Asian 2015](#)). It is vital in smoothing out all of a company's operations, whereas profitability depends on the degree of profit performance. Because of the impact on a company's day-to-day operations, both external and internal analysts benefit from studying liquidity and profitability ([Elangkumaran & Karthika, 2013](#)). The value of liquidity and profitability to a company's success may define the company's profit growth rate ([Zygmunt, 2013](#)). Liquidity is a requirement for a company since it demonstrates its capacity to meet short-term obligations. The quick ratio and current ratio are two popular measurements of a company's liquidity condition. The current ratio determines how short-term obligations are affected. A high current ratio, on the other hand, demonstrates a company's ability to pay its short-term debt or obligations, while the quick ratio assesses the influence on subsequent liabilities and current assets. Once assets are liquid, it means they can be converted into cash quickly and without incurring a loss. A low current ratio implies that a company is having difficulty meeting its debt commitments, service providers, and potential suppliers early enough ([Owolabi et al., 2012](#)).

Both financially and environmentally are essential for an enterprise to thrive and maintain desirable to investors and other stakeholders in order to remain effective and stay in business. Profitability is important for a firm's products, but long-term viability requires expansion. It's critical to determine and concentrate on revenue early on in a company's life cycle, or start-up. Market and profits growth,

on the other extreme, are the methods to achieve that initial sustainability. After a firm has passed the start-up period, identifying expansion possibilities must be the next priority on its to-do list.

A firm's communication is basically an expansion, resulting in the company being larger, expanding its market, and subsequently becoming more successful. Various relevant variables, including revenue, the number of employees, share price, and turnover, can be used to measure growth. Even if a firm's market profitability is satisfactory, growth possibilities should always be pursued because they provide opportunities for increased financial results and keep economists and future, or existing, investors fascinated in the organization. Understanding a firm's current state is critical to developing a sustainable investment strategy. An early attempt to create if a firm has too many shortcomings, such as efficiency, revenues, or salability, can lead to the company's demise. Consolidation of present markets is the first phase, which entails locking down a firm's current status before seeking to change it through growth.

The voids left by earlier studies in this field influenced the selection of the study of pharmaceutical entities. This research was prepared to close those inadequacies. Numerous articles on this topic focused mostly on the financial industry, including banks, insurance businesses, oil and gas companies, and other finance institutions, etc [ValuereschiwatI \(2020\)](#); [Appah et al. \(2021\)](#); [Sutardjo and Afriyani \(2019\)](#); [Kajola et al \(2019\)](#). But not much has been written that emphasis on the pharmaceutical sector of the economy. Most of the researches conducted in this area adopted liquidity ratio and profitability ratio influence on profit growth as single variables ([Appah et al. 2021](#); [Sutardjo & Afriyani 2019](#)). None of the studies conducted in this area used the exact sample adopted by this study; thus making the generalization of results to be unreliable and inconsistent. Most of the researches in this area did not make the novel suggestions that could improve the health sector's liquidity management.

Researchers in both advanced and developing economies have produced results when discussing liquidity ratio and profitability ratio in Nigeria. [Duruechi et al \(2016\)](#), [Bassey and Moses \(2015\)](#), and [Edem \(2017\)](#) all looked at liquidity management and performance from a macroeconomic viewpoint in Nigeria, with minimal attention paid to the pharmaceutical industry. Even in a few research that looked at other sectors, such as [Kehinde \(2013\)](#), and [Idowu, et al, \(2017\)](#), there were contradicting and varied results.

Therefore, the purpose of this study was to perform an empirical inquiry into the effect of liquidity and profitability ratios in the Nigerian business environment, with a focus on pharmaceutical companies. However, the precise objectives were to; determine the impact of the current ratio of liquidity ratios on the profit growth rate of pharmaceutical companies in Nigeria; investigate how the quick ratio of liquidity ratios affects the profit growth rate of pharmaceutical companies in Nigeria; ascertain the impact of the net profit margin on the profit growth rate of pharmaceutical companies in Nigeria; determine the impact of return on asset and profitability ratios on the profit growth rate of Nigerian pharmaceutical companies.

2. Literature Review

Empirical studies revealed mixed results of the relationship between liquidity ratio and profitability ratio on profit growth of pharmaceutical firms in Nigeria. Such empirical literatures includes the ones below:

[Onyimba et al. \(2020\)](#), investigated the impact of management of financial resources on the profitability of a subset of pharmaceutical companies listed on the Nigerian stock exchange between 2014 and 2018. The inventory turnover is used as an independent variable, and gross operational profit is used as a dependent variable. Liquidity, the ratio of financial assets in the balance sheet, size, and leverage are then regulated. The goal of was to look into how average payment times affected the profitability of particular pharmaceutical companies in Nigeria. Following assessing the data using a fixed effect model (FEM) was performed. The study's conclusions showed that the average collecting

period of the chosen Nigerian enterprises had a negative and significant influence on profitability. The conclusion is that businesses might boost profitability as measured by cash conversion cycle and profitability by decreasing the accounts receivable collection period because a strict trade credit policy may increase cash flow and reduce bad debt. Cash becomes available for other purposes, increasing operating profitability for the company.

General linear method and instrumental variable techniques were used by [Klein and Weill \(2022\)](#), to investigate the relationship between banks performance and economic growth over a panel of 132 countries from 1999 to 2013. They discovered that bank profitability had a positive effect on GDP in both the short- and long-term. They claimed that the conclusions held up well when bank profit dynamics were taken into account. They can withstand different measurements, requirements, and time frames.

[Sultan \(2021\)](#), using sets of targeted data from 20 panels between 2005 and 2015, examined factors affecting banks' performance throughout Pakistan. The AOLS technique, which is used to examine the impact of various variables like funds, repayments, securities, economic expansion, increased prices, price declines, and share price on key financial indicators such as (ROA), (ROE), (ROCE), and other metrics, was used by him to establish the study (NIM). The outcomes of the research evaluated reliable data that led to the discovery that both external and internal variables have a detrimental effect on the degree of profitability. Various researchers value a finding from this study. His study suggested that banks might increase their efficiency and profitability by concentrating and redesigning their internal drivers.

The impact of efficiency and solvency on profit growth in the pharmaceutical industry was studied by [Sitohang and Siagian \(2021\)](#). In this study, purposive sampling was used. Pharmaceutical businesses listed on the Indonesia Stock Exchange (IDX) from 2015 to 2019 comprise the research sample, with a total sample size of 9 companies. According to the findings of this study, profitability significantly influences profit growth and has a favorable link with it. Liquidity, in contrast, has a weak negative correlation with profit growth. Profitability and liquidity both have a strong beneficial impact on profit growth simultaneously.

The impact of company's financial profit efficiency was studied by [Chibuike and Celestine \(2022\)](#) using data from the Nigerian pharmaceutical sector. The study used an ex post facto research design using ten (10) pharmaceutical businesses that were listed on the Nigerian Exchange Group in 2021 as its population. Data for the years 2011 to 2020 were taken from the annual reports of the chosen listed pharmaceutical businesses. Data collected with the use of EViews10 statistical software were analyzed using multiple linear regression and the Sequences Granger Causality tests. The analysis showed that operating activities have a little favorable impact on liquidity. Additionally, it showed that investing activities had a small but positive impact on liquidity. Finally, it showed that financing operations have a negative but considerable impact on the solvency of Nigerian pharmaceutical businesses that are publicly traded. In order to increase the firm's efficiency and financial performance, it was advised that listed pharmaceutical businesses in Nigeria be encouraged to develop a fair cash flow control strategy. Additionally, to be financially strong to support their investing operations, pharmaceutical businesses should review their financial management techniques.

[ValuereschawatI \(2020\)](#), investigated the impact of cashflow, efficiency, firm size, and value in the capital structure. In this study, 15 banking businesses traded on the Indonesian Stock Exchange from 2014 to 2018 were used as a sample. The Eviews 8.0 program was utilized as the analysis approach. The findings of this study show that capital structure is influenced by liquidity, profitability, and business size. Whereas asset base is a regulator of the impact of perceived size on firm value, it is not really a facilitator of the impact of financial leverage and financial performance on the market value of the firm.

According to [Nairobi et al. \(2022\)](#), the efficient utilization of intellectual resources, property rights, physical capital, and other production elements can promote economic progress. The most effective strategy for this study's panel data was the Common Effect Model, which was derived using the Eviews 9.0 analytic tool. According to calculation results, the right of property (IPR), the labor ratio, and foreign investment all significantly and favorably affect economic growth. That is, *ceteris paribus*, if the GPA rises by 1%, it will encourage economic development in a more positive manner. Economic growth is positively and significantly impacted by early growth. A good initial growth number suggests that there is socioeconomic convergence in this case. The necessity of lengthening the study's duration and amount of cross-sections in order to collect data from a wider range of sources. In order to boost society's acceptance of property rights and boost the economy of the nation, ASEAN must increase property rights.

[Odukwu and Eke \(2022\)](#), investigated the association between financial data and manufacturing firm performance in Nigeria. The study's main goal was to figure out what the relationship was between operational expenditure ratio, asset turnover ratio, and return on equity in Nigerian manufacturing companies. The study hypothesized that there is no meaningful relationship between overhead cost ratio and financial results of food manufacturing firms, and that there is no strong relation between assets turnover ratio and financial results of fast - moving consumer goods firms. An expos-factor design was used in the research. The study used secondary data from selected industrial firms' financial reports from the Nigerian Exchange Group (NGX), which spanned the years 2014 to 2019. The data was analyzed using both descriptive statistics and Pearson Product Moment correlation analysis in SPSS. There is no significant association between operating expenditure ratio and return on capital, however there is a strong relationship between assets asset turnover and return on equity, according to the data. As a result, the indicated that financial disclosure had a somewhat substantial impact on manufacturing firm performance in Nigeria. Manufacturing enterprises should evaluate their assets turnover increasing exposure and return on equity, according to the report, in order to improve their financial performance.

Estimated debt-to-equity ratio, profits per share, price earnings ratio, and stock prices of businesses in the commodities industry sector that are listed on the Stock Exchange of Indonesia for the years 2016 to 2018 were determined by [Rahmawati and Hadian in 2022](#). This study employed an explanatory research methodology. This study employed an explanatory methodological approach. The sample size for this study is 34 businesses in the consumer products industry sector listed on the Indonesia Stock Exchange for the years 2016 to 2018. The sampling approach utilized in this research is non-probability screening with a survey method. Regression-based panel data analysis with Eviews 9 was the method of analysis employed in this study. The findings indicated that the stock prices were influenced by the debt to equity ratio, earnings per share, and price to profit ratio. The study's findings also indicate that 98.7% of the effect of stock prices is contributed to by the debt-to-equity ratio, earnings per share, and price-earnings ratio.

The impact of liquidity, gearing, activity, and net profits on profit growth in manufacturing businesses listed on the Indonesia Stock Exchange in 2013–2017 was examined by [Abas et al. in 2020](#). In this study, causal associative research was used (causal research). The information used comes from the financial statements of manufacturing companies published by the Indonesia Stock Exchange on www.idx.co.id. The data are analyzed using quantitative analysis represented by numerical data. The findings demonstrated that a quick ratio (QR) of 0.151, with an error probability of 0.015, denoted a level of liquidity that implied a favorable and significant impact on profit growth. Debt to Equity Ratio (DER) of -1.029, with an error probability of 0.005, indicating a level of leverage that had a negative and significant impact on profit growth. Inventory Turnover (ITO) of 0.288, with an error probability of 0.113, indicated a level of activity that suggested a favorable but small impact on profit growth. A positive and significant impact on profit growth, levels of liquidity, leverage, activity, and profitability was revealed by the level of profitability as assessed by Return on Equity (ROE), which was 0.569 with an error probability of 0.033. Additionally, the degree of liquidity, leverage, activity, and profitability all simultaneously exhibit a strong impact on profit growth as indicated by a simultan

test (F) of 0.451, with an error probability of 0.002.

[Eke and Odukwu \(2022\)](#), looked into good value for money analysis and financial success of manufacturing businesses in Imo State. The study's major goal was to see how quality and value analysis may help industrial enterprises in Imo State manage costs more efficiently. This research used a descriptive approach as its research strategy. A total of 94 employees from five manufacturing organizations took part in the study, and Taro Yamen's procedure was used to first-rate a random sample of 131 participants from that group. To obtain the key data, the researchers used questionnaires that were sent to study participants. Because of the Generalized Least Square and Pearson Correlation Coefficient techniques, the analysis could be done in SPSS. The findings revealed a link between efficiency and effectiveness and financial success, namely profit before taxes and value for money analyses. According to this study, value for money analysis has a significant influence on the financial efficiency of industrial firms in Imo State. According to the research, businesses should conduct a value for money analysis to verify that they are not wasting time and money before taxes.

[Appah et al. \(2021\)](#), looked at the profit growth of Nigerian-listed oil and gas businesses, as well as profitability ratios. The data for the study was gathered from annual reports of sampled firms from 2014 to 2019, using an ex-post-facto and qualitative methodology. Secondary data from the sampled firms' public financial statements was analyzed using descriptive, correlation matrix, and multiple regression techniques. According to the findings of the multivariate analysis, the current ratio, litmus test ratio, gross profit ratio, profit margin, net working capital, assets ratio, return on equity, and return on capital employed all have a positive and significant impact on the profit growth of Nigerian listed oil and gas companies.

The impact of liquidity and firm size on profitability and corporate value in the Indonesian financial industry was explored by [Sutardjo and Afriyani \(2019\)](#). The research focused on companies listed on the Indonesia Stock Exchange, with 40 companies selected to take part. The data was analyzed using SEM (Structural Equation Modeling), which also was done with the Analysis Moment Structure (AMOS) version 22 tool. (1) Liquidity has a positive and significant effect on profitability but a negative and insignificant effect on firm value; (2) corporate size has a positive and not significant effect on financial performance and firm value; (3) profitability has a positive and significant impact on firm value; and (4) Liquidity has a significant and positive impact on firm value.

[Kajola et al \(2019\)](#), analyzed the influence of banks' profitability in ten Nigerian deposit money organizations from 2008-to-2017. It was decided to use an ex post facto study design. The study collected data from secondary sources. The results indicated a positive and statically relevant influence on two financial stability proxies (average amount and cash conversion cycle) and return on asset, using both descriptive statistics and multidimensional least squares as estimate techniques. According to the study, banks' executive board and top investment advisers would put in place a solid framework for managing their banks' liquidity in order to achieve long-term profitability.

Using five businesses from the NSE's Health Care Sector from 2005 to 2014, [Abubakar \(2016\)](#) evaluated the Financial leverage has an effect on corporate performance. The Fixed Effects Model was used to implement a panel data framework in the study (FEM). Financial leverage was proxied by the short-term debt ratio (STDR), the long-term debt ratio (LTDR), the total debt ratio (TDR), and the total debt equity ratio (TDER), while financial success was measured by Return on Equity (ROE). The FEM results show that STDR and LTDR have a considerable beneficial impact on the profitability, whereas TDR and TDER have a significant and negative impact. According to [Ubesie \(2016\)](#), long-term debt has a negligible adverse bearing on firm's financial success. This was the conclusion of looking at the impact of macroeconomic variables on stock performance of conglomerates listed on the Nigerian stock exchange's market from 2011 to 2015.

[Kuria and Omboi \(2015\)](#), investigated the link between liquidity on profitability of investment and banking firms listed on Kenya's Nairobi Securities Exchange from 2009 to 2013. To assess the effect of the selected factors, the study used both correlation and inferential analysis techniques. The

findings found that debt-to-equity and debt-to-capital ratios had a negative significant link with ROA, however long-term debt has no such relationship. The results of another model revealed that the debt-to-equity ratio has a substantial favorable connection with ROE, whereas the debt-to-capital ratio has a large negative link with ROE. Long-term debt, like the ROA model, does not have a substantial relationship with ROE.

[Asian \(2015\)](#), looked on the influence of liquidity and solvency factors on profit growth in Nigerian pharmaceutical companies. Liquidity ratios such as the acid ratio measures the ability, current ratio, and net working capital were employed in the study. Rate of return, returns on capital used, return on capital, gross profit ratio, and profitability ratio were all put to the test against profit growth. The Hausmann test was used to determine whether a fixed effect or random effect model should be used. The choice of a fixed-effect model was justified by the results. The findings of the study revealed that all variables used in financial metrics and profitability ratios have a significant impact on the earnings growth of the pharmaceutical industry in Nigeria, implying that gradual success in the variables can lead to increased shareholder returns by the pharmaceutical industry.

Using descriptive statistics, Pearson correlation, and multiple regression approaches, [Innocent et al \(2014\)](#) investigated the influence of monetary leverage on the business results of three (3) publicly traded health care companies in Nigeria from 2001 to 2012. According to the study, debt ratio and debt-to-equity ratio have a significant connection with ROA, however interest coverage ratio has a positive link with ROA.

[Mohd and Yasuo \(2013\)](#), opined that information and communications technology (ICT) system has grown and spread dramatically. The ICT industry's continued development would become a major element in economic growth. This empirical study aims to compare the success of Japan and three ASEAN nations in the ICT industry by analyzing sales growth ratios and profitability ratios. Using the t test approach, data from the Orbis Database (OVBD) were analyzed for 24 ICT companies in the ASEAN area (Thailand, Malaysia, and Philippines) and 69 ICT enterprises in Japan. According to the findings, there was no great disparity in overall sales performance between Japan and ASEAN. In the meantime, in the ICT business, ASEAN outperforms Japan in terms of profitability. The analysis also backs up INSTEAD and the World Economic Forum's Global Information Technology Report, as well as an OECD report and earlier literature reviews. But it does have practical consequences for ICT industry business executives and owners.

[Uwalomwa and Uadiale \(2012\)](#), used data from a sample of thirty-one companies listed on the Nigerian stock exchange from 2005 to 2009. The Simple Least Squares (OLS) approach was used to scrutinize the presented data. During the study period, it was found that short-term debt had a favorable impact on financial performance.

3. Research Methodology

The effect of liquidity and financial ratios on the profit growth rate of pharmaceutical enterprises in Nigeria was investigated to accomplish the study's goal. The study's population includes the 7 listed pharmaceutical firms in Nigeria as at 31st December, 2021. Because several of the listed pharmaceutical companies' financial reports were out of date, 6 were chosen as sample. With a sample of six (6) selected listed pharmaceutical enterprises on the Nigerian stock exchange market, the study employed 30 yearly observations from six selected pharmaceutical firms registered on the Nigerian Stock Exchange, presently known as Nigerian Exchange Group (NGX), from 2016 to 2021 as a secondary data source. The study used an ex-post facto research design. In order to analyze the data, the study used both descriptive statistics and the Pearson Product Moment correlation Coefficient with the aid of SPSS version 20.

4. Results and discussions

Table 1. Descriptive Statistics analysis

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
CR	30	.32	9.33	1.7709	1.69579	3.244	.427	13.652	.833
QR	30	.15	9.21	1.4032	1.76263	3.270	.427	13.283	.833
NPM	30	-1.38	.29	-.1714	.46573	-1.510	.427	1.136	.833
ROA	30	-.35	.18	-.0235	.13836	-1.086	.427	.327	.833
PGR	30	1.00	12705.09	425.6148	2319.22273	5.477	.427	30.000	.833
Valid (listwise)	N ₃₀								

Source: SPSS Print Out, 2021

The descriptive statistics of the data supplied with the variables of current ratio (CR), quick ratio (QR), net profit margin (NPM), return on asset (ROA), and profit growth ratio were shown in table 1 as a result (PGR). The results showed that the current ratio (CR), quick ratio (QR), and profit growth ratio (PGR) all have a positive growth rate as shown by the Minimum, Maximum Mean, and Standard derivation statistical values, whereas the net profit margin (NPM) and return on asset (ROA) both have a negative growth rate. The current ratio (CR) increased from 0.32 to 9.33 with a mean value of 1.17709 and a standard derivation of 1.169579, the quick ratio (QR) increased from 0.15 to 9.21 with a mean value of 1.4032 and a standard derivation of 1.76263, and the profit growth ratio (PGR) increased from 0.15 to 9.21 with a mean value of 1.4032 and a standard derivation of 1.76263.

With a mean of 4.6148 and a standard derivation of 2.22273, while the net profit margin (NPM) increased from -1.38 to 0.29 with a mean of -0.1714 and a standard derivation of 2.22273. The result also revealed skewness and kurtosis, indicating a consistent amount of skewness and kurtosis. The various statistics show that the variables are distributed differently. The skewness and kurtosis statistics provide meaningful information on the symmetry of various data series' probability distributions, as well as the thickness of their tails. The current ratio (CR), quick ratio (QR), and profit growth ratio (PGR) all have positive skewed values, indicating a long right tail, whereas net profit margin (NPM) and return on asset (ROA) have negative skewed values, indicating a short right tail.

Table 2: Correlation of Hypotheses one and two

		CR	PGR
CR	Pearson Correlation	1	.842**
	Sig. (2-tailed)		.000
	N	30	30
PGR	Pearson Correlation	.842**	1
	Sig. (2-tailed)	.000	
	N	30	30

		QR	PGR
QR	Pearson Correlation	1	.837**
	Sig. (2-tailed)		.000
	N	30	30
PGR	Pearson Correlation	.837**	1
	Sig. (2-tailed)	.000	
	N	30	30

Source: SPSS(20)

Pearson product-moment correlation coefficient was used to determine the correlation between the dependent variables net profit margin (NPM), return on asset (ROA), and the independent variables current ratio (CR) and quick ratio (QR) and the independent variables current ratio (CR) and quick ratio (QR) (QR). According to Sekaran (2008)., if the correlation coefficient runs from -1.0 (perfect negative correlation) to +1.0 (perfect positive correlation), the relationship is believed to be linear (perfect positive relationship). To measure the strength of the association across variables of the study, the correlation coefficient was determined.

The Pearson correlation coefficient of the correlation involving current ratio (CR) and quick ratio (QR) on profit growth rate was found in table 2. (PGR). The correlation coefficient of 0.842 in the table above indicates a strong positive correlation between current ratio (CR) and profit growth rate (PGR), with a P-value of 0.000 at the 0.05 significance level, implying a statistically significant link. The result also revealed a correlation coefficient of 0.837, indicating a strong positive association between the quick ratio (QR) and the profit growth rate (PGR), with a P-value of 0.000 at the 0.05 significant level, showing a statistically significant correlation. As a result, we accept the null hypothesis one to two and reject the alternatives implying that there is a substantial association between current ratio, quick ratio of liquidity ratios, and current ratio.

Table 3: Correlation of Hypotheses three and four

		NPM	PGR
NPM	Pearson Correlation	1	.153
	Sig. (2-tailed)		.421
	N	30	30
PG	Pearson Correlation	.153	1
	Sig. (2-tailed)	.421	
	N	30	30

		ROA	PGR
ROA	Pearson Correlation	1	.136
	Sig. (2-tailed)		.475
	N	30	30
PGR	Pearson Correlation	.136	1
	Sig. (2-tailed)	.475	
	N	30	30

Source: SPSS(20)

Source: SPSS Printout (2021)

The Pearson product-moment correlation coefficient of the association involving net profit margin (NPM), return on asset (ROA), and profit growth rate was found in table 3. (PGR). The correlation coefficient in the table above was 0.153, indicating a very weak positive correlation between net profit margin (NPM) and profit growth rate (PGR), with a P-value of 0.421 > significant level at 0.05, implying no statistically meaningful link. The correlation coefficient was also 0.136, indicating a very weak positive connection across return on asset (ROA) and profit growth rate (PGR), with a P-value of 0.475 > significant level at 0.05, signaling no statistically meaningful link. As a result, we reject null hypotheses three to four and accept the alternative solutions. According to the findings, there seems to be no significant connection between pharmaceutical businesses' net profit margin, return on asset return on assets, and earnings growth rate in Nigeria.

Discussion

According to our findings, there is a substantial association involving liquidity ratios (current ratio and quick ratio) and profit growth rate of pharmaceutical companies in Nigeria. In agreement with our findings, liquidity has a favorable and considerable effect on the value of the company via profitability, according to [Sutardjo and Afriyani \(2019\)](#).

Similarly, the findings also demonstrated that there is no link between profitability ratios (net profit margin and return on asset) and the profit growth rate of pharmaceutical companies in Nigeria. our finding contradicts with that of [Asian \(2015\)](#), who revealed that all indicators in the liquidity ratio have a substantial relationship with the profit growth of the pharmaceutical business in Nigeria, implying that continued improvement in the indicators can lead to increased earnings growth by pharmaceutical industry. [Kajola et al \(2019\)](#), found a favorable and statistically significant association between two liquidity risk management proxies (current ratio and liquidity ratio) and return on asset.

5. Conclusion

Effective experience and understanding of growth necessitate a long-term investment in education. It can really promote an atmosphere where talented individuals can not only do their core tasks and moreover discover the development of new products that will profit and enrich the general population. Using an ex-post-facto research methodology, this study looked at the influence of liquidity and profitability parameters on profit growth of pharmaceutical enterprises in Nigeria. Both descriptive statistics and the Pearson Moment Correlation Coefficient were used in this investigation. As a proxy for liquidity ratio and profitability, the study used time series data of current ratio, quick ratio, net profit margin, and return on asset. Profit growth was measured using the profit growth rate as a proxy. For the years 2016 through 2021, six pharmaceutical companies were chosen. The information was obtained from the Nigeria Exchange Group (NGX) website. According to the empirical data, the

current ratio's liquidity ratio and the fast ratio's liquidity ratio showed a statistically significant link with profit growth rate. The profitability ratio of net profit margin and return on asset did not have a statistically significant association with profit growth rate. As a result of the empirical findings, the study indicated that the liquidity ratio has a strong association with pharmaceutical firm profit growth in Nigeria, whereas the profitability ratio has no such relationship.

Limitation

This study was limited to liquidity ratio and profitability ratio on profit growth of pharmaceutical firms in Nigeria between 2016 through 2021. Thus, further studies on this topic should be carried out on other industries such as the manufacturing industry etc.

Suggestion

On the basis of the findings and conclusions, the study suggested that;

- a. Pharmaceutical companies are required to utilize the current ratio and quick ratio of liquidity ratios to determine the amount of profit growth in order to understand the company's condition, which can have a favorable impact on liquidity decisions.
- b. Firms are urged to rigorously assess profitability ratios at every point in time before utilizing them to calculate profit growth rates.
- c. Imminent scholars who wish to investigate comparable study, it is recommended that they increase the number of models utilized, lengthen the time period, and include more independent variables in order to obtain a more accurate result.
- d. Entities should always set aside sufficient funds for emergencies and to satisfy their long and short-term responsibilities as needed.

Referensi

- Abas, H., Kawatu, F. S., & Kewo, C. L. (2020). Analysis of profit growth of manufacturing companies listed on the Indonesia Stock Exchange (IDX) for 2013-2017 Period. *International Journal of Applied Business and International Management*, 72–78. <https://doi.org/10.32535/ijabim.v0i0.878>
- Abubakar, A. (2016). Financial leverage and financial performance: Evidence from the health care sector of the Nigerian stock exchange from 2005- 2014. *ADSU Journal of Economics and Interrelated Disciplines*, 1(2), 45- 64.
- Appah E., Onowu J. U., & Tonye Y. (2021). Liquidity and Profitability Ratios on Growth of Profits of Listed Oil and Gas Firms in Nigeria. *African Journal of Accounting and Financial Research*, 4(3), 1-14. DOI: 10.52589/AJAFR6NHPAYUO.
- Asian, A. U. (2015). Assessing the impact of liquidity and profitability ratios on growth of profits in Pharmaceutical firms in Nigeria. *European Journal of Accounting, Auditing and Finance Research*, 3(10), 97-114.
- Bassey, G. E., & Moses, C. E. (2015). Bank profitability and liquidity management: A case study of selected Nigerian deposit money banks. *International Journal of Economics, Commerce and Management*, 3(4), 1-24.
- Chibuike, U. C., & Celestine, A. E., (2022). Effect of Cashflow Management on Financial Performance: Evidence from the Pharmaceutical Industry in Nigeria. *African Journal of Accounting and Financial Research*, 5(1), 1–13. <https://doi.org/10.52589/ajaf-r-shmld3aq>
- Duruechi, A .H. Ojiegbe J .N. & Otiwu K .C. (2016). Liquidity management measures and bank performance in Nigeria: An empirical analysis. *European Journal of Business and Management*, 6(17), 2435.
- Edem, D. B. (2017). Liquidity management and performance of deposit money banks in Nigeria (1986 – 2011): An investigation. *International Journal of Economics, Finance and Management Sciences*, 5(3), 146-161.

- Eke, P. & Odukwu, V. C. (2022). Value for money analysis and financial performance of manufacturing firms in Imo State. *Mazedan International Business Review*, 3(1), 1-7. http://mdl.mazedan.com/search_details.php?id=1901
- Elangkumaran, P., & Karthika, T. (2013). An analysis of liquidity, profitability and risk: A study of selected listed food, beverage and tobacco companies in Sri Lanka. *International Conference, South Eastern University of Sri Lanka*, 4(1), 1-7.
- Idowu, A. A., Essien, M. J., & Adegboyega, R. (2017). Liquidity management and banks' performance in Nigeria. *Issues in Business Management and Economics*, 5(6), 88-98.
- Innocent, E. C., Ikechukwu, A. C. & Nnagbogu, E. K. (2014). The effect of financial leverage on financial performance: Evidence of quoted pharmaceutical companies in Nigeria. *IOSR Journal of Economics and Finance*, 5(3), 17- 25.
- Kajola, S. O., Sanyaolu, W. A., Alao, A. & Ojunrongbe, O. J. (2019). Liquidity and profitability: Evidence from the Nigerian Banking Sector. *Accounting and Taxation Review*, 3(2), 1-12.
- Kehinde, O. P. (2013). An empirical investigation of the liquidity profitability relationship in Nigerian commercial banks. *Journal of Economics and Sustainable Development*, 6(4), 108-119.
- Klein, P. O., & Weill, L. (2022). Bank profitability and economic growth. *Quarterly Review of Economics and Finance*, 84, 183-199. <https://doi.org/10.1016/j.qref.2022.01.009>
- Kuria, J., & Omboi, B. (2015). Influence on the capital structure and the financial performance of investment and banking firms listed at Nairobi securities exchange Kenya. *Prime Journal of Business Administration and Management (BAM)*, 5 (11), 1983- 1991 *Conference of Informatics and Management Sciences*, 1(3), 247-251.
- Mohd, F. M. S., & Yasuo, H. (2013). Sales Growth, Profitability and Performance: Empirical study of Japanese ICT Industries with three Asean Countries. *Interdisciplinary Journal of Contemporary Research in Business*, 4(11)
- Nairobi, N., Ambya, A., Afif, F. Y., & Pratikno, D. D. (2022). Ownership rights and ASEAN-5 economic growth. *Studies in Economy and Public Policy*, 1(1), 1-13.
- Odukwu, V. C. & Eke, P. (2022). Financial information and performance of manufacturing firms in Nigeria. *Mazedan International Business Review*, 3(1), 8-13
- Onyimba, R. C., Ugwu, B. N., & Basse, E. E. (2020). Impact of Receivable Management on selected Pharmaceutical Firms in Nigeria. *Nigerian Journal of Banking and Finance*, 12(1), 28-33. Retrieved from https://www.njbaf.com/images/2020_articles/Volume_12128-33_Onyimba_et_al.pdf
- Owolabi, S. A., Obiakor, R. T. & Okwu, A. T. (2011). Investigating liquidity-profitability relationship in business organizations: A study of selected quoted companies in Nigeria. *British Journal of Economics, Finance and Management Sciences*, 1(2), 11-29.
- Rahmawati, Y., & Hadian, H. N. (2022). The influence of debt equity ratio (DER), earning per share (EPS), and price earning ratio (PER) on stock price. *International Journal of Financial, Accounting, and Management*, 3(4), 289-300. <https://doi.org/10.35912/ijfam.v3i4.225>
- Septiani, N, Suryana, L. (2018). "Effect of Profitability, Firm size, Asset Structure, Business Risk, and Liquidity on the Capital Structure". *E-Journal of Accounting, Udayana University*, 22(3).
- Sitohang, D., & Siagian, H. (2021). Effect of profitability (ROA) and liquidity (CR) on profit growth in company's Pharmaceutical sector IDX. *Ekonomis: Journal of Economics and Business*, 5(2), 439. <https://doi.org/10.33087/ekonomis.v5i2.399>
- Sultan, Y. (2021). Determinants of Bank Profitability. *Jinnah Business Review*, 9(2), 1-14. <https://doi.org/10.53369/vzis3854>
- Sutardjo, T. & Afriyani (2019). Effect of Liquidity and Company Size on Profitability and Company Value in Industry Banking in Indonesia Stock Exchange. *Journal of Research in Business and*

Management, 7(6), 28-38

- Ubesie, M. C. (2016). The effect of capital structure on the financial performance of Nigerian quoted conglomerates. *European Journal of Accounting, Auditing and Finance Research*, 4(6), 61-69
- Uwalomwa, U. & Uadiale O. M. (2012). An empirical examination of the influence on capital structure and the financial performance of firms in Nigeria. *Euro Economica Journal*, 1(31), 57-65
- Valuereschiwati, R., Syahdina, A. & Handayani, S. (2020). Effect of Liquidity, Profitability, and Size of Companies on Firm. *Value Utopía Praxis Latinoamericana*, 25(6): <https://doi.org/10.5281/zenodo.3987632>
- Zygmunt, J. (2013). Does liquidity impact on profitability? A case of polish listed IT companies.