



FINANCIAL PERFORMANCE OF LISTED FIRMS IN NIGERIA: A COMPARATIVE ANALYSIS OF PRE AND POST COVID-19 PANDEMIC PERIOD

Kehinde, J. S., Bolarinwa, S. A., Ibrinke, E. O

Accounting Department, Faculty of Management Sciences, Lagos State University.

Corresponding Author: IBIRONKE, E. O

ABSTRACT

Efforts and policies of the Nigerian government to prevent Covid-19 and its spread have brought some challenges to Nigeria businesses which include reduction in business activities, volume and income, amongst other financial performance parameters. All government policies restricting movement and lockdowns had since been removed after the spread of the pandemic had been successfully contained. Whether the performances of these Nigeria companies had rebounded after the containment of the virus remains an empirical questions. Therefore, this study examined if there is any significant difference in the financial performance of listed firms in Nigeria for the pre and post COVID-19 period. The study covered a period of six years from 2017 to 2022 which were divided into Pre COVID-19 lockdown period and Post COVID-19 lockdown period. Secondary data were obtained from the annual reports of all the firms listed in Nigeria for the years 2017 to 2022. The study used a sample of 113 firms listed on the Nigerian Exchange. The research used the Wilcoxon signed rank test to conduct its analysis. The findings of the study showed that there was a negative and significant differences in the EPS ($Z = -6.049, p = .000$), ROA ($Z = -6.821, p = .000$) and ROE ($Z = -6.912, p = .000$) of the listed firms in Nigeria in the pre and post COVID-19 Pandemic periods. The study concluded that the EPS, ROA and ROE of the listed firms in Nigeria decreased in the post COVID-19 era as compare to period before the COVID-19. The study recommended that management of firms should consider ways of reducing operational costs without compromising quality. The study further recommended that firms should have plans in place that can help them deal in future with unexpected contingency like an outbreak and total lockdown.

KEYWORDS: COVID-19, Earnings per Share (EPS), Financial Performance, Return on Assets (ROA), Return on Equity (ROE)

INTRODUCTION

Financial performance of firms is a measure of the effective and efficient utilisation of resources to achieve firms' stated goals and objectives. It is an important performance indices of firms as it measures the monetary outcome of the firm operating activities and determines the possibility of growth and survival of the firm. Ojukwu (2021) opined that financial performance measures the liquidity of a business over a period of time. Financial performance is the outcome of the effective and efficient utilization of assets and capital to generate revenue and profit (Wahlen, Baginski & Bradshaw, 2014).

COVID-19 is a virus that was discovered in the city of Wuhan of the People Republic of China. This virus spread to other part of the world by the beginning of year 2020 and has continue till date. The virus which was declared a pandemic on 11 March 2020 by the World Health Organization (WHO) has a severe adverse effect not only on human health but also on the economy and businesses. In order to curtail its spread, governments all over the world introduced various measures which include restrictions in movement, social distancing and complete lockdown of the economy activities. In Nigeria, the index case was discovered on 27 February 2020 and within weeks the number of cases discovered has increased which makes the Government to imposed measures such as mobility restriction in some states like Lagos, Ogun and the Federal Capital Territory to forestall the spread of the virus. However, the spread continued to be on the increased which make the government to completely restrict movement and also lockdown all economy activities in addition to other measures such as use of nose mask and social distancing in all



public places. As at the end of October 2021 the total cases in Nigeria is 211,961, active cases 5,944, number of deaths 2,896 and recovered/discharged cases 203,121 (Worldometer, 2021).

The shock emergence of COVID-19 created some challenges to businesses especially as it concerns their financial performances such ROA, ROE, EPS etc. Anisere-Hammed (2021) asserted that COVID-19 greatly disrupt production, interrupt the supply-chain, reduced revenue and cash flows and make the equity and debt markets volatile. As a result of the pandemic, market prices of equity and debt instruments nosedived, demand for goods and services reduced and there was also a drop in investments on capital improvements. All these are occasioned by the measures (restriction in movement, lockdowns and social distancing) taken by the government to curtail the spread of the virus. The spread of COVID-19 pandemic brought a retraction to global economy. Atayah, Dhiaf, Nahaf and Frederico (2021) asserted that COVID-19 pandemic brought about the worst global recession ever witnessed since 1930. The pandemic also adversely affect the performance of firms in all sectors of the world economy in different manners and measures (Shen, Fu, Pan, Yu and Chen, 2020). Actions implemented by Government to checkmate the spread of the virus posed varieties of problems and challenges to businesses.

Veselinova and Samonikov, (2021) opined that all measures taken by the government at the outbreak of this virus were right because human lives comes first before businesses. But now this important objective has now given rise to another also important objective which is to save businesses and jobs. Veselinova and Samonikov (2021) asserted that these policies lead to reduced business activity, volume and income. Pantano, Pizzi, Scarpi and Dennis (2020) noted that government measures to combat Covid-19 pandemic distorted and severely affected the activities of some firms during the period. However, in Nigeria it was reported that 98 companies listed on the stock exchange were able to weather the COVID-19 impact by recording a turnover of 6.1trillion naira (Egwuatu, 2021). He added that the corporate world may have shaken off the adverse impact of the COVID-19. This study therefore intends to examine if there is a difference in the performance of listed firms in Nigeria in the pre and post COVID-19 pandemic periods.

STATEMENT OF THE PROBLEM

The novel COVID-19 pandemic spreads and caused untold effects to all economies. Its effects are not limited to individuals but also to various businesses. According to Khatib and Nour (2021) this epidemic is not just a health problem but also affects all economies and organizations differently as a result of government efforts to curtail it. In Nigeria, the government policy to lockdown and restrict movements in the entire country for the larger part of year 2020 due to the pandemic impacted all sectors in the country. However, this impact has been mixed because activities in some sectors are severely distorted while some other sectors are mildly affected. Some of the firms seriously affected are firms in the tourism, hospitality and transportation sectors. Activities in these sectors are completely grounded at a time and even when the policies were relaxed, firms in these sectors are directed not to accommodate full capacity of their customers at the same time in order to adhere to the policy of social distancing. Pantano *et al.* (2020) opined that general belief is that the epidemic affected all industries worldwide but its impact on the hospitality and airline sector is severe as it led to a collapse of activities in these sectors. In the same vein, operations of firms in some industries especially firms in the foods and beverages and health sectors were not so adversely distorted because these industries are classified as essential and therefore allowed to continue operations. During this period of combating the COVID-19 pandemic, measures adopted by the Government to limit the spread of the virus led to downturns in sales, production and employment while consumption experienced an increase. At that time, firms in some sectors like the pharmaceutical, foods and beverages, and financial institutions are positively affected because demands for their products are not in any ways affected. While operations of firms in other sectors like transportation, tourism and hospitality are negatively affected. The extent to which this situation affected firms' financial performance has not been explored. According to Andam, Edeh, Oboh, Pauw and Thurlow (2020), the Nigeria economy suffered a loss of 34.1% which amount to \$16b in GDP during the lockdown periods. They further asserted that the service sector accounted for about \$10b of the loss in the GDP and agriculture sector also recorded a loss of 13.1% in output. The annual reports of some firms for the year 2019 and 2021 revealed there are reductions in net income. For instance SCOA (conglomerate sector) reported a net income of ₦319m in 2019 and ₦72m in 2021, Nestle Foods (consumer goods sector) reported ₦45b in 2019 and ₦40b in 2021, Union bank (financial service sector) reported ₦24b in 2019 and ₦19b in 2021, Berger paint (industrial goods sector) reported a net income of ₦448m in 2019 and ₦135m in 2021, also Tantalizer (services sector) reported a net income of ₦22m



in 2019 but a net loss ₦214m in 2021. However, empirical evidence is thin on whether these performance trends cut across the different sectors of the Nigerian economy.

Financial performances are measured using either the accounting based measures which is proxy by profitability (ROA, ROE, ROCE etc.) and turnover measures (asset turnover etc.) or market based measure which is proxy by Tobin's Q. Zouaoui, Nouyrigat and Beer (2011) however opined that market based performance are subjective to investors' behaviours. Economy and firms situation influenced investors' sentiment and in return determines their investment decisions (Donadelli, Kizys & Riedel, 2017). Therefore, during the pandemic period, market performance may not suitably reflect firms' performance because investors' reactions may be irrational due to fear of likely negative effect of COVID-19 on firms. Hence, in this study accounting-based measures are adopted to determine firms' performance because they represent firms' internal performance void of any external influences. Several studies have been conducted with focus on various areas such as supply chains (Sharma, Adhikary & Borah, 2020), firm solvency (Mirza, Rahat, Naqvi & Rizvi, 2020), demand-supply mismatch (Erolu, 2020), abnormal stock returns (Liu, Yi & Yin, 2020), cash holdings (Qin, Huang, Shen & Fu, 2020), leverage (Slater, 2020), technology readiness (Mirza *et al.*, 2020; Shen *et al.*, 2020). In Nigeria, different authors has researched into the effect of COVID-19 on SMEs (Aderemi, Ojo, Ifeanyi & Efunbajo, 2020; Akingbade, 2021; Oyewale, Adebayo & Kehinde, 2020; Enesi & Ibrahim 2021); effect of COVID-19 on liquidity and profitability of firms (Amnim, Aipma & Obiora, 2021). However, to the best knowledge of the researcher, none of the study in Nigeria has evaluated if there is any significant difference in the financial performance of firms in Nigeria before the COVID-19 period and after the outbreak of the COVID-19 in Nigeria. Hence this study intends to advance knowledge by examining if there is a significant difference in the financial performance (measured with ROA, ROE and EPS) of firms listed on the Nigerian Exchange for the pre and post COVID-19 pandemic period (2017 – 2022).

RESEARCH OBJECTIVES

The objective of the study is to examine whether there is any significant difference in the Return on Asset (ROA), Return on Equity (ROE) and Earnings per share (EPS) of listed firms in Nigeria before and after COVID-19 pandemic period. Thus the objectives of this study are:

- i. To evaluate whether there is any significant difference in the EPS of the listed firms on the Nigerian Exchange between the pre and post COVID-19 periods.
- ii. To examine if there exists significant difference between the ROA of the listed firms on the Nigerian Exchange between the pre and post COVID-19 periods.
- iii. To assess if any significant difference exists between the ROE of the listed firms on the Nigerian Exchange between the pre and post COVID-19 periods.

RESEARCH HYPOTHESES

The study tested for the following hypotheses:

H₀₁: There is no significant difference between the EPS of listed firms in Nigeria between the pre and post COVID-19 pandemic periods.

H₀₂: There is no significant difference between the ROA of listed firms in Nigeria between the pre and post COVID-19 pandemic periods.

H₀₃: There is no significant difference in the ROE of listed firms Nigeria between the pre and post COVID-19 pandemic periods.

LITERATURE REVIEW

Financial Performance

Financial performance of firms is a measure of the effective and efficient utilization of resources to achieve firms' monetary objectives. It is an important performance index of firms because it is an outcome of the firm operating activities and determines the possibility of growth and survival of the firm. Financial performance is an important performance of organizations that determine their survival and long-term growth (Zheng, Zhao, Sun & Khan, 2021). Ojukwu (2021) opined that it measures the soundness of a company over a period of time. Financial performance is the effective and efficient usage of assets and capital to generate revenue and profit (Wahlen *et al.*, 2014). Kaplan and Norton, 1996 noted that when a firm effectively achieved its financial performance goal, it can help to actualize other non-financial performance objectives. A profitable firm will be able to provide incentives to their labour force which in turns will lead to employees' satisfaction and low labour turnover (Chi & Gursoy, 2009)



Financial performance is measured using different indicators. It can be determined using either the accounting based measures which is proxy by profitability (ROA, ROE, EPS, ROCE and so on) and turnover measures (asset turnover ratio, fixed asset turnover ratio, sales turnover etc.) (Zheng *et al*, 2021; Ojukwu, 2021), or market-based performance of a firm's shares which is proxy by Tobin's Q (Fu, Singhai & Parkash, 2016). Williams and Dobelman, 2017 stated that profitability is a measure of how a firm can use its resources to make profit. According to White, Sondhi and Fried, 2003 turnover ratios are indicators of a firm's ability to effectively and efficiently use their assets and capital to realize revenue. A low asset turnover ratio is an indicator of inefficient usage of assets (Garanina & Kaikoya, 2016). Zouaoui, Nouyrigat and Beer (2011) however opined that market-based performance is subjective to investors' behaviours. Economy and firm's situation influenced investors' sentiment and in return determine their investment decisions (Donadelli, Kizys & Riedel, 2017).

Return on Assets (ROA)

The ROA is a key measure of an entity's growth in terms of business operations. The ROA is a metric that measures how effectively a business has used its assets to generate profit. According to Rosikah, Dzulfikri, Muh and Miswar (2018) ROA measures a company ability to generate profits using owned assets. The rate of ROA is calculated after interest and tax expenses (Brigham & Houston, 2001). Mohd, Muammar and Ainatul (2014) stated that ROA is a financial ratio that measure the extent to which a firm uses its assets to generate profits. A higher ROA signify a better performance.

Calculation of Return on Assets: ROA is determined by comparing available net profit to total assets, according to Brigham and Houston (2001).

$$\text{ROA} = \frac{\text{Net Income}}{\text{Total Assets}}$$

Return on Equity (ROE)

ROE is arrived at by dividing the earnings after tax (net income) by equity. It is useful to evaluate a company profitability level and how efficiently such company generates profit. A higher ROE signify a better and efficient profitability.

Berzkalne and Zelgalve (2014) stated that ROE indicates the percentage of a company's profit realized on a unit of its equity value. ROE is a good measure to determine the capability of company to generate income that is commensurate to the amount invested in it (Berman, Knight and Case, 2013). Mainulhasan (2012) opined that Net earnings are returned as a proportion of shareholders' equity, or ROE. According to Akbar (2021), ROE can be used to gauge how effectively a management team is leveraging the company's capital to produce returns for shareholders. ROE can be measured in ratio units as follow:

$$\text{ROE} = \frac{\text{Earnings After Tax (EAT)}}{\text{Shareholders' Equity}}$$

Earnings per Share (EPS)

EPS is one of the measures used to assess the financial performance of an entity. It is a firm's earnings divided by the number of its issued shares. EPS is a company's net earnings after-tax attributed to equity shareholders divided by the number of shares.

Seetharaman and Raj (2011) stated that earnings per share measure a company performance in a year and the firm's possibility of progressing in the nearest future. Earnings per share is a portion of a company earnings net of taxes and preference dividend that is allocated to each ordinary shares (Islam, Khan, Choudhry & Adnan, 2014).

Earnings per share (EPS) is calculated by dividing the earnings after taxes and preference dividend by number of ordinary shares in issue. i.e.

$$\text{EPS} = \frac{\text{Earnings} - (\text{Tax} + \text{Preference dividend})}{\text{Numbers of ordinary shares}}$$



COVID-19 Pandemic Period

The coronavirus family includes the COVID-19 virus. According to the World Health Organization, the coronaviruses are a group of viruses that can infect both people and animals (WHO, 2020). The ordinary cold to more serious conditions like Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS) are all caused by these viruses. In December 2019, the virus known as COVID-19 was found in Wuhan, People's Republic of China. By the start of the year 2020, this virus had already spread to other parts of the globe and was still going strong. The virus, which the WHO designated a pandemic on March 11, 2020, has a serious negative impact not only on people's health but also on the economy and enterprises.

In order to curtail its spread, governments all over the world introduced various measures which include restrictions in movement, social distancing and complete lockdown of the economy activities. In Nigeria, the index case was discovered on 27 February 2020 and within weeks the number of cases discovered has increased causing government to imposed measures such as mobility restriction in some states like Lagos, Ogun and the Federal Capital Territory to forestall the spread of the virus. However, the spread continued to be on the increase which made the government to completely restrict movement and also lockdown all economic activities in addition to other measures such as use of nose mask and maintaining of social distance in all public places. As at the end of October 2021 the total cases in Nigeria was 211,961, active cases 5,944, number of deaths 2,896 and recovered/discharged cases 203,121 (Worldometer, 2021).

THEORETICAL REVIEW

Contingency theory

The contingency theory developed by Fred Fiedler in 1964 is an organizational theory that claims that there is no best way to organize a corporation, to lead a company, or to make decisions. Instead, the optimal course of action is contingent (dependent) upon the internal and external situation. Contingent leaders are flexible in choosing and adapting to succinct strategies to suit change in situation at a particular period in time in the running of the organization. According to Hanisch and Wald (2012), this theory received recognition and significance from the seminar works of (W Woodward, 1965; Lawerance & Lorsch, 1967). According to the theory, there is no one best way to manage and organize things. Instead, the contingency-based approach contends that organizational performance depends on how well a number of factors such as structure, people, technology, strategy, and culture fit together (Deng & Smith, 2013). (Freeman, 2014) defines contingency theory as a corpus of research that looks at how organizational structure adapts to outside forces, particularly shifting circumstances that make decisions unclear. The COVID 19 pandemic is an outbreak that prevented businesses from operating as a result of the impact on human health and governmental restrictions. Therefore, this interruption is believed to have a detrimental effect on the performance of the company. At such situation, management of firms are expected to think out the best ways and practices to manage their operations and limit the effects of the policies on their organisation. It is against this background that this theory is relevant.

Empirical review

Several studies carried out with focus on COVID-19 pandemic and firm performance were reviewed.

Qadri, Ma, Raza, Li, Qadri, Ye, and Xie (2023) investigated the pre and post effect of COVID-19 on the financial performance of organizations in the South Asian economy. The study examined a sample of 34 banks from the South Asian region from 2016 to 2021. A Wilcoxon rank test was used to determine whether there was a significant difference before and after the epidemic era. The study measured financial performance using Return on Asset (ROA), Earnings per share (EPS), Return on Equity (ROE), Total Asset Turnover (TAT), Debt to Equity Ratio (DER) and Debt to Asset (DTA). The study found that there is a big difference between pre-pandemic and post-pandemic organizational performance.

The performance of financial enterprises in Nigeria and the COVID-19 pandemic were both evaluated by Anastasia, Blessing, and Oghenetega (2022). Banks' ROA and CAR serve as proxies for performance, while COVID-19 is calculated as the ratio of all positive cases to the Nigerian population. According to the study, COVID-19 significantly and favorably affects the CAR and ROA of banks in Nigeria.

Alsamhi, *et al* (2022) investigated the impact of COVID-19 on business performance using empirical data from India. In the study, financial performance was evaluated using net sales, net profit, total revenue, and diluted earnings per share. The study used the first quarter of 2020 as the post-COVID-19 period, whereas the fourth quarter



of 2019 was used as the pre-COVID-19 period. The Wilcoxon Signed Ranks Test was used to analyze the data. The total income, net sales, net profit, EPS, and diluted EPS of the tourism, hotel, and consumer industries were significantly different before and during the outbreak. The study also discovered that before and after the outbreak, the net sales and overall income of the food and construction industries were dramatically different. While there is no appreciable difference in the building and food industries' net profits, EPS, or diluted EPS before and after the outbreak.

Hu and Zhang (2021) looked at business performance and cross-country evidence of the COVID-19 pandemic. While COVID-19 is measured by the logarithm of cumulative cases or new cases of COVID-19, firm performance is proxied by ROA. Control variables included firm size, leverage, tangibility, and cash holding. The study determines that COVID-19 cumulative cases have a negative association with ROA using regression analysis. The study also found that businesses operating in nations with better financial, health, and governance systems fared a little better during the pandemic.

Using data from 13 nations, Golubeva (2021) analysed how well businesses performed during the COVID-19 pandemic. Impact and sales per employee were the two factors used in the study to gauge performance. The impact of the pandemic on the firm, which is labelled as closed (0), temporarily open (1), and open, is measured (2). The number of instances in each nation is used to calculate COVID-19. Country, finance, and company size are the control variables. The study's findings from regression analysis showed that business size, export, and demand had a major impact on the operations of enterprises during the COVID-19 period.

A study was carried out by Atayah, Dhiaf, Najaf and Frederico (2021) to determine how COVID-19 affected the financial performance of logistics companies. As substitutes for financial success, ROA, ROE, and EPS were utilized. COVID-19 was calculated using dummy variables with values of 1 during the pandemic period (2020) and 0 for the time before the pandemic (2019). The study found that throughout the pandemic period, logistic businesses' financial performance was noticeably greater.

Farwisi, Siyam, Nazar, and Aroosiya (2021) investigated the link between corporate governance and firm performance during the COVID-19 outbreak in Sri Lanka. Performance indicators included ROA, ROE, TQ, leverage, and liquidity. The results of the study indicated a favorable link between board size and director qualifications and business performance after the data were analyzed using the Ordinary Least Square (OLS) method. NED proportion, gender diversity, board meetings, audit committee size, audit committee meetings, and firm performance are all negatively correlated with each other. The results showed that COVID-19 has a negative impact on corporate governance and business performance.

In 2021, Sun and Li conducted research on the relationship between the COVID-19 Outbreak and the Financial Performance of Chinese Listed Firm As indicators of a company's financial performance, the revenue growth rate (REG), ROA, ROE, and ATO are used. COVID-19 data were gathered from the second quarters of 2019 to the second quarters of 2020. The COVID-19 pandemic was shown to have had a detrimental effect on the financial efficiency of Chinese listed companies as their sales growth rate, ROA, ROE, and ATO all experienced a severe fall in the first quarter of 2020.

Khatib and Nour (2021) looked into the impact of corporate governance on business performance during the COVID-19 epidemic using data from Malaysia. For 2019 and 2020, 188 businesses listed on the Malaysian stock exchange were the subject of the study's information gathering. The early and late phases of the pandemic were regarded as occurring in 2019 and 2020, respectively. The study included financial performance measures including ROA, ROE, EBIT, and profit margin as proxies, as well as corporate governance parameters like board size, gender, independence, board meetings, audit committee size, and meetings. Pooled OLS was used for data analysis. The investigation found that, even before and after the pandemic crisis, the COVID-19 pandemic had no impact on corporate governance and commercial performance.

In order to evaluate corporate governance structure and performance in the tourism sector during the COVID-19 pandemic, Jin, Gao, and Xiao (2021) performed an empirical study of Chinese listed companies in China in 2021. The study used ROA and revenue growth as performance measures the study's findings demonstrated that the



COVID-19 pandemic increased revenue but decreasing return on assets (ROA) for tourism enterprises. Additionally, the research revealed that organizations with higher CEO pay had little to no drop in ROA and revenue growth.

Daryanto and Rizki (2021) carried out a research on the financial performance analysis of Construction Company before and during COVID-19 pandemic in Indonesia. This study analyzed for any significant differences on the financial performance of a mall, hotel, and residential construction company in Indonesia named PT PP Properti before and during pandemic using the return on asset (ROA), return on invested capital (ROI), return on equity (ROE), liquidity ratio, solvency ratio, profitability ratio, and activity ratio. Data were collected from the company's quarterly financial statements data from 2019 to 2020 and used to measure the company's financial performance before the pandemic and during the pandemic. The parametric t-test was used to analyze the data. The study concluded that the pandemic greatly affected the company's financial performance.

Drawing from the studies reviewed above, data for year 2017 to 2022 were used to evaluate if there is any significant differences in the ROA, ROE and EPS of listed firms in Nigeria for the pre and post COVID-19 pandemic period. These studies considered effects of the pandemic period on firms' performance by comparing performances before the pandemic period with performances after the pandemic outbreak. The reviewed studies (Farwisi *et al.* 2021; Sun & Li, 2021; Daryanto & Rizki (2021); Alsamhi *et al.*, 2022; Atayah *et al.*, 2021; Anatasia *et al.*, 2022; Qadri *et al.* (2023)) generally measured firms' performance using ROA, ROE, EBIT, EPS etc. Also majority of these reviewed studies focused mainly on one sector and covered a period of 2019 to 2020 except for the study by Qadri *et al.* (2023) that covered a period up to 2021. This study however gathered data for year 2017 to 2022 to examine if the financial performance of listed firms in all sectors in Nigeria before the COVID-19 pandemic is significantly different to their financial performance in the periods after the COVID-19 pandemic. In line with other studies reviewed above, this study measured financial performance using ROA, ROE and EPS.

RESEARCH METHODS

The population of this study includes all firms listed on the Nigeria Exchange that cuts across all the sectors. The study made use of secondary data gathered from annual reports of the listed firms on the Nigeria Exchange as at 31 December 2022. The year of study is year 2017 to 2022; in line with the study conducted by Qadri *et al.* (2023), year 2017 to 2019 is the pre COVID-19 period while year 2020 - 2022 is considered as the post COVID-19 period.

The sampling technique used in this study is the census sampling technique. This sampling technique is a technique in which all the elements of the population are used as sample size (Abdulrahman, 2014). Data of all the 156 listed firms on the Nigeria Stock Exchange were extracted, 43 firms' annual reports has some missing value hence not usable. Therefore, the data used in this study are that of 113 listed firms on the Nigeria Stock Exchange across different sectors as follow:

Table 1: Sectoral distribution of firms

Sector	Number of firms
Agricultural	4
Conglomerate	5
Construction/Real Estate	8
Consumer Goods	13
Financial Services	34
Healthcare	6
ICT	6
Industrial Goods	10
Natural Resources	3
Oil & Gas	6
Services	18
	113

Source: Student's compilation, 2023

The study measured financial performance with ROA, ROE and EPS.



The study examined if significant differences exist on financial performances of firms listed on the Nigerian Stock Exchange between the years (2017 - 2019) prior to the COVID-19 pandemic period lockdown and the years (2020 – 2022) after it.

In order to analyse the data, a normality test was conducted using Kolmogorov-Smirnov and Shapiro-Wilk tests. The essence of the normality tests is to determine the suitable data analysis test to use. The result of the normality tests which is reported in Table 2 below show that data is not normally distributed as the P-Values of all the variables are significant (less than 0.05). Therefore, the appropriate test to use is the non-parametric test. The study therefore used the Wilcoxon Signed Ranks Test which is the alternative to the parametric test (paired sample t-test). Wilcoxon signed rank test is a non-parametric test used to look into sample differences between periods. It is additionally used to compare two collections of samples drawn from the same population.

RESULT AND DISCUSSION

Table 2: Descriptive Statistics

Variables	PERIOD	OBS	MIN	MAX	MEAN	STD DEV
PRE COVID 19 EPS	2017 - 2019	339	-6.37	11.86	0.2367	1.41680
POSTCOVID19EPS	2020 - 2022	339	-7.43	11.99	0.2220	1.50027
PRECOVID19ROA	2017 - 2019	339	-1.46	4.25	0.0206	0.41584
POSTCOVID19ROA	2020 - 2022	339	-18.80	11.00	0.0857	1.25897
PRECOVID19ROE	2017 - 2019	339	-19.64	52.74	0.0885	4.10467
POSTCOVID19ROE	2020 - 2022	339	-1.15	6.17	0.0189	0.35926

Source: Student's computation, 2023

According to Table 2 descriptive statistics findings, Pre-COVID-19 pandemic period EPS averaged 23.67 per share, but post-COVID-19 pandemic period EPS averaged 22.20 per share. According to the findings, the EPS of Nigerian listed companies decreased somewhat following the outbreak. Result of the descriptive test revealed that ROA improved from 0.0206 before the pandemic to 0.0857 after the pandemic, demonstrating that ROA were generally better after the Covid-19 period. Also, the result in the Table shows that the mean ROE values before and after the pandemic are 0.0885 and 0.0189 respectively. These findings show that the ROE of Nigeria's listed companies decreased as a result of the COVID-19 outbreak.

Table 3: Tests of Normality

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
PRE COVID 19 EPS	.277	339	.000	.618	339	.000
POSTCOVID19EPS	.291	339	.000	.578	339	.000
PRECOVID19ROA	.341	339	.000	.313	339	.000
POSTCOVID19ROA	.342	339	.000	.578	339	.000
PRECOVID19ROE	.422	339	.000	.155	339	.000
POSTCOVID19ROE	.332	339	.000	.204	339	.000

Source: Student's computation, 2023

Table 3 reveals the test of normality. The result shows that the variables are not normally distributed based on the significant p-value of 0.000 that is less than 5%. The study used a non-parametric test for difference, that is, Wilcoxon signed ranks test to examine the significant difference in the firms' financial performance for the pre and



post COVID-19 pandemic period lockdown. The Wilcoxon signed ranks test is a non-parametric test, thus, does not need normality in the data.

Table 4: Wilcoxon Signed Ranks Test

Variables	Negative Ranks	Positive Rank	Ties	Total	Z	sign	Hypothesis summary
EPS	81 ^a	244 ^b	14 ^c	339	-6.049	0.000	Rejected
ROA	89 ^a	240 ^b	10 ^c	339	-6.821	0.000	Rejected
ROE	229 ^a	93 ^b	17 ^c	339	-6.912	0.000	Rejected

Source: Student's computation, 2023

Note: a. POSTCOVID-19 Period Performance Proxy < PRECOVID19 Period Performance Proxy

b. POSTCOVID19 Period Performance Proxy > PRECOVID19 Period Performance Proxy

c. POSTCOVID19 Period Performance Proxy = PRECOVID19 Period Performance Proxy

Hypotheses 1

H₀₁: There is no significant difference between the EPS of listed firms in Nigeria between the pre and post COVID-19 Pandemic periods.

Table 4 shows that EPS has a Z-value of -6.049 and P-value of 0.000. This implies that there is a significant difference between the EPS of the listed firms in Nigeria for the pre and post COVID-19 Pandemic periods. Hence, the null hypothesis one is rejected. From the table the standardized Z-statistic is -6.049 which is negatively significant at 0.000 which means that post COVID-19 pandemic period EPS is lesser than Pre COVID-19 pandemic period. This means that the firms during the POST COVID-19 period performed less well than during the pre COVID-19 period. This result is similar to the findings of Qadri *et al.*, (2023) and Alsamhi *et al.*, (2022).

Hypotheses 2

H₀₂: There is no significant difference between the ROA of listed firms in Nigeria between the pre and post COVID-19 Pandemic periods.

Table 4 shows that ROA has a P-value of 0.000. This implies that there is a significant difference between the ROA of the listed firms in Nigeria in the pre and post COVID-19 Pandemic period. Hence, the null hypothesis two is rejected. Table 4 further shows that the standardized Z-statistic is -6.821 which is negative and significant at 0.000 which means that post COVID-19 ROA is less than Pre COVID-19. This indicates that the firms' performance before the COVID-19 pandemic period lockdown was better than that of Post COVID-19 pandemic period. This result is similar to the findings of Qadri *et al.*, (2023), Daryanto & Rizki (2021) and Alsamhi *et al.*, (2022).

Hypotheses 3

H₀₃: There is no significant difference in the ROE of listed firms in Nigeria between the pre and post COVID-19 Pandemic periods.

Table 4 shows that ROE has a P-value of 0.000. This implies that there is a significant difference in the ROE of the listed Nigeria firms in the pre and post COVID-19 Pandemic period. Hence, the null hypothesis three is rejected. In addition, the table shows that the standardized Z-statistic is -6.912 which is negative and significant at 0.000 which means that post COVID-19 period ROE is less than Pre COVID-19 period. This implies that the firms during post COVID-19 pandemic period performed less than pre COVID-19 period. This result is similar to the findings of Qadri *et al.*, (2023) but differs from the findings of Daryanto & Rizki (2021).

CONCLUSION AND RECOMMENDATIONS

The study examined if the COVID-19 pandemic period lockdown created any differences in the financial performance of listed firms in Nigeria in the Pre and Post COVID-19 era. The study used a sample of 113 firms for 6 years period; 2017 to 2019 being pre covid-19 era and 2020 to 2022 being post COVID-19 era. The study examined whether there was a significant difference in the financial performance of the listed firms in these period. The study found that there are negative and significant difference in the EPS, ROA and ROE of the listed firms in Nigeria in the pre and post COVID-19 Pandemic periods. The study concludes that financial performance of the



firms were negatively affected by the measures imposed by the government to curtail the spread of the virus. This implies that the listed firms in Nigeria in terms of performance were yet to fully recover from the effects of the COVID-19 period lockdown.

The study recommends that among others that Management should considers more ways through which cost of operations can be reduced without compromising quality. Additionally, Firms should always have a sound and effective emergency plan that would be useful in situation of unexpected occurrence. Lastly, Government should assist firms by enacting policies/measures that would reduce firms' operational costs and cushion the negative effect of COVID-19 period lockdown.

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