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Firm Structural Traits and Stock Performance During and Post Covid-19 Pandemic

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ABSTRACT

The study examines the effect of firm structural traits on stock performance in a crisis period such as Covid-19 pandemic. The study assuages some firm structural traits to include profitability, firm size, firm leverage, business risk, asset structure, firm age, and market capitalization. While Stock performance is the ratio of each stock's final price to its start price on each anniversary date. The study made use of the quantitative research which intends to adopt the use of a pairwise comparison method to examine the effect of firm structural traits on stock performance. The population of this study consisted of 108 non-financial firms (NFF) from the 10 sectors quoted firms on the floor of the Nigerian Exchange Group (NGX) with available and accessible annual reports that covered the study period of 2020, 2021, 2022 and 2023. The study acknowledged 2020-2021 as covid year, while 2022-2023 as post covid year. However, 82 firms were selected from the population of non-financial firms that existed during and post COVID-19 pandemic period. The statistical analysis to evaluate the relationship between independent and dependent variables was Generalized Method Moments (GMM) regression analysis. The findings suggest that profitability was a key factor in stabilizing stock prices during the crisis, but as the economy began to recover, other factors gained prominence, and profitability became less influential. The study concluded that during the pandemic, profitability (ROA) was crucial for stock performance, but its significance diminished post-pandemic. It was recommended in the study that firms should focus on maintaining strong profitability to stabilize stock prices. Post-pandemic, it is important to diversify focus beyond profitability as other factors may become more influential.

Keywords: Firms Structural Traits, Stock Performance, Covid-19, Non-Financial Sectors, Nigeria

1. Introduction

Stock performance (SP) is very inviolable to the growth of firms (Bui et al., 2023). Firms want to make sure their investment improves at every given time, hence at every anniversary the firms want to establish growth in their stock price to increase their stock performance. Stock performance (SP) is the ratio of each stock's Final Price to its Start Price on each Anniversary Date, or [Final Price - Start Price]/Start Price (O'shea, 2023). In determining this, the stock of the firm must be competitive and of economic advantage in the stock market. Stock therefore is described as the ownership certificates of any firm which translate to shares. According to Nyikyaa (2021) stocks are shares of ownership in a corporation, to put it simply, is a claim on the firm's assets and profits as represented by stock.

Outbreak of coronavirus pandemic (COVID-19) has disrupted the stock market thereby affecting most firms' stock performance. COVID-19 has a lot of adverse effect on various firm due to the policy of distancing, face mask and so on which force some firms to shut down while others were operating and observing the policy of distancing and face mask during operation of the firm's production (Al Amosh & Khatib, 2023; Ramya & Baral, 2021).

As firms navigate the challenges imposed by the pandemic, understanding the factors that shape their stock performance during and after this crisis period is imperative for investors, policymakers, and corporate stakeholders. Prior studies conducted in Nigeria have emphasized the importance of firm structure characteristics in explaining many facets of firm performance and behavior (Anyanwu & Augustine, 2020).

These structural traits encompass a spectrum of factors, including profitability, firm size, firm leverage, business risk, asset structure, firm age, and market capitalization. Individually, these traits provide insights into distinct dimensions of firm operations and financial health. For instance, profitability reflects a firm's ability to generate earnings from its operations (Uwuigbe & Olaleye, 2021). Despite the significance of these firm structural traits, existing studies in Nigeria have mostly concentrated on analyzing them in isolation or have not comprehensively explored their combined effects on stock performance (Olatunji & Mavrotas, 2021). This research gap is particularly evident in studies examining the impact of the Covid-19 pandemic on firm performance (FP) and stock market dynamics. While some studies have investigated the impact of individual firms' traits on SP during the pandemic, there is a notable absence of research that integrates multiple structural traits and assesses their collective impact on SP.

Sudden outbreak of coronavirus pandemic (COVID-19) has adverse impact on various aspect of world economy as represented in the number of people infected by, and deaths from COVID-19 as well as impacts on the environment, politics, health, and society (Al Amosh & Khatib, 2023). Countries responded by locking down economic activities and peoples' movement, imposing travel bans to contain the spread of the virus.

Stock prices of firms across the globe, which is the most active financial indicator, also reacted to the unprecedented slowdown in economic activities occasioned by COVID-19 (He et al., 2020; Phan & Narayan, 2021). The scenario has attracted researchers across the globe on the effect that COVID-19 has on firms' attributes. There is extensive accounting literature on the connection between firm structural traits and performance of firms during the crisis period. For instance, researchers from developed and developing countries have made their studies on COVID-19 pandemic.

Despite the tremendous studies from both developed and developing countries including Nigeria there is no research work that is conducted on firm structural traits and stock performance in Nigerian firms during and post COVID-19 pandemic. The purpose of this investigation is to bridge this gap by providing empirical evidence on the relationship between firm traits and stock performance in Nigeria during a period of unprecedented global disruption using quantitative analysis.

1.1. Objectives of the Study

The broad objective of this study is to examine the effect of Firm structural traits on stock performance of Nigeria firms during and post covid-19 pandemic. The specific objectives of the study are to:

a) ascertain the effect of return on asset (ROA) on SP of Nigerian firms during and post covid-19 pandemic.
b) investigate the effect of firm size on stock performance of Nigerian firms during and post covid-19 pandemic
c) ascertain the effect of financial leverage on SP of Nigerian firms during and post covid-19 pandemic
d) investigate the effect of business risk on SP of Nigerian firms during and post covid-19 pandemic
e) ascertain the effect of asset structure on SP of Nigerian firms during and post covid-19 pandemic
f) examine the effect of firm age on SP of Nigerian firms during and post covid-19 pandemic
g) investigate the effect of market capitalization on SP of Nigerian firms during and post covid-19 pandemic.

1.2. Research Questions

The following research questions are anticipated to be answered at the end of this research:

a) What is the effect of ROA on SP of Nigerian firms during and post covid-19 pandemic?
b) What is the effect firm size on SP of Nigerian firms during and post covid-19 pandemic?
c) What is the effect of financial leverage on SP of Nigerian firms during and post covid-19 pandemic?
d) What is the effect of business risk on SP of Nigerian firms during and post covid-19 pandemic?
e) What is the effect of asset structure on SP of Nigerian firms during and post covid-19 pandemic?
f) What is the effect of firm age on SP of Nigerian firms during and post covid-19 pandemic?
g) What is the effect of market capitalization on SP of Nigerian firms during and post covid-19 pandemic?

1.3. Research Hypotheses

The following alternate hypotheses will be tested in the course of the study:

Hi_1: ROA has no significant effect on SP of Nigerian firms during and post covid-19 pandemic.
Hi_2: Firm size has no significant effect on SP of Nigerian firms during and post covid-19 pandemic
Hi_3: Financial leverage has no significant effect on SP of Nigerian firms during and post covid-19 pandemic
H_{i4}: Business risk has no significant effect on SP of Nigerian firms during and post covid-19 pandemic
H_{i5}: Asset structure no significant effect on SP of Nigerian firms during and post covid-19 pandemic
H_{i6}: Firm age has no significant effect on SP of Nigerian firms during and post covid-19 pandemic
H_{i7}: Market capitalization has no significant effect on SP of Nigerian firms during and post covid-19 pandemic.

2. Literature Review

2.1. Concept of Firm Structural Traits

Firm traits are the firm's demographic and managerial variables which, in turn, comprise part of the firm's internal environment (Egbunike & Okerekeoti, 2018). Firm traits include leverage, liquidity, asset growth, sales growth, firm size, and turnover (Kogan & Tian, 2012). Some other firm traits according to Khalil (2011) comprise the firm's age, ownership structure, board composition, dividend distribution, profitability, capital market accessibility, and expansion prospects. There are also several firm traits that differ systematically across firms. According to earlier studies, companies that engage in earnings management are frequently smaller (Shehu, 2012), less profitable (DeFond et al., 2002), have slower growth rates, and have more leverage than the industry average (Catagna & Matoksy, 2008). According to this research, the level of profit made by companies that use earnings management is based on how well they operate in order to increase their profits. Managers often reduce profits when operating performance is abnormally high and boost profits when operating performance is low. However, if operating performance is exceedingly poor, managers may further reduce profits—a tactic known as the "taking bath" technique. Since profit is a crucial component that enhances a company's growth, managers must oversee their businesses to generate a respectable profit (Shoaib & Siddiqui, 2022).

Firms are usually established to make profit from their investment hence any firm will strive to improve their SP in the stock exchange. Firms are seen as an association of persons coming together with a common objective of establishing a business that either could produce goods or service with the aim of making profit (Shehu, 2012).

2.2. COVID-19 Pandemic

A global public health incident called COVID-19 is still having an impact on businesses today. Most of the nations under COVID-19 implemented quarantine laws, including Nigeria, Japan, South Korea, Germany, Britain, the United States, Australia, and others. Businesses in these nations and regions likewise experienced the COVID-19 effects, had to implement management improvement strategies to deal with the government's quarantine regulations, and focused on enhancing their OR to handle unexpected significant disasters. Therefore, businesses in other nations can use the consequences of adopting management improvement action and increasing Business flexibility as a guide (Rai et al., 2021).

The "COVID-19 pandemic" prompted a global blockade and economic shutdown which had a serious negative impact on businesses' operations, sales, and output, leading to a drop in FP (Rai et al., 2021). In light of this, in spite of the fact that many businesses worldwide are completely mired in the COVID-19 issue and its associated hardships, where all business categories have been severely impacted, quite a few businesses are nevertheless able to recover swiftly. Therefore, studying how businesses quickly bounce back from poor performance during the COVID-19 pandemic is crucial for ensuring the long-term success of companies and the overall health of the national economy during times of crisis and recovery from the pandemic (Shen et al., 2021).

2.3. Profitability on Stock Performance During and Post COVID-19 Pandemic

The term "profitability" describes a company's capacity to turn a profit from its activities. Since profitability provides a comprehensive indication of a company's potential to increase its income level, it is the most significant and trustworthy indicator of a company's growth (Ahmed et al., 2011; Okwoma, 2024). Profitability is typically measured using financial ratios such as profit margin, ROA, return on equity (ROE), and earnings per share (EPS). These ratios offer information about a firm's efficiency, effectiveness, and general financial well-being. Profitability is a key factor that influences stock performance during and after the Covid-19 pandemic (Qadri et al., 2023). Significant effects of the pandemic have been seen in global economies, causing disruptions in various industries and financial markets. Understanding the connection between profitability and stock performance during this period is crucial for investors and analysts (Qadri et al., 2023).

The pandemic's effects on profitability varied across sectors. Some industries, such as technology, e-commerce, healthcare, and certain consumer goods sectors, witnessed increased demand and improved profitability. This was driven by factors such as remote work trends, increased online shopping, healthcare needs, and essential goods consumption. Firms with strong profitability during the pandemic generally outperformed their peers in terms of stock performance. Investors tend to favour firm's that can maintain or improve their profitability even in challenging times. Such firms demonstrate resilience and are better positioned to navigate uncertainties (Wang et al., 2022).

Thus, in the post-pandemic period, the relationship between profitability and stock performance remains crucial. As economies recover and stabilize, investors focus on firms' ability to sustain or regain profitability levels seen before the pandemic. Firms that can adapt to changing market dynamics, innovate their business plans, and effectively manage costs are more prone to experience positive stock performance. In post-pandemic, Amalia et al. (2020) stated that as economies recover and businesses adapt to the new normal, profitability will continue to play a crucial role in determining stock performance. firms that can effectively manage costs, innovate, and capitalize on emerging opportunities are likely to experience improved profitability and subsequently attract investor interest. On the other hand, industries heavily affected by travel restrictions, social distancing measures, and reduced consumer spending faced significant challenges in maintaining profitability (Alviana & Megawati, 2021).

2.4. Firm Size on Stock Performance During and Post COVID-19 Pandemic

Firm size (FSIZE) may also affect the SP of a firm. The association between FSIZE and SP as a metric for achieving high performance. Thus, the larger firm's desire is to maintain its track record of giving investors and users of its financial statements high-quality accounting information regarding their stock performance in the capital market. According to studies by Kwaltommai et al. (2019) and Serrasqueiro & Maçãs Nunes (2008), large businesses are more likely to benefit from economies of scale and have stronger negotiating positions with customers and suppliers.

FSIZE has been largely regarded as among the most important variables in empirical literature (Adebayo et al., 2022). Studies on the impact of business size, however, have produced a range of results; some confirm it, while others find little to no impact. Adebayo, et. al., (2022), believed that it was demonstrated that debt negatively mediates the relationship between financial performance and FSIZE.

2.5. Financial Leverage on Stock Performance during and post COVID-19 Pandemic

Financial leverage (FlEV) is described as the ratio of debt to equity in a company's capital structure (Adebayo, et. al., 2022). A company's commercial and financial risk is assessed using its leverage ratio. Ishak et al. (2018) claim that highly geared organizations are more worried by debt covenants due to their reliance on debt to finance riskier new ventures. Shareholders would be terrified by the prospect of bankruptcy if debt levels were high. Studies have shown that highly geared firms are more likely to participate in earnings management to satisfy debt covenants. Given the widening and growth of the insolvency risk, the debt situation will alert leaders to the risk to their compensation and other advantages, which in turn prompts leaders to adopt effective management techniques as well as conformance with good governance practices. According to Uwhejevwe-Togbolo, et al., (2024) asserted that operating a company doesn't always involve being in a favorable financial position, so it's important for companies to seek external sources of funding to support their operations and ensure the longevity of their business. The post COVID-19 pandemic has impacted FLEV on SP which is anticipated to continue but may be influenced by additional factors in the business environment.

As economies recover and business activities resume, companies with high leverage may find it difficult to acquire more leverage which may depend on the viability of their business in the post Covid-19 pandemic era (Haque & Varghese, 2021). Consequently, Companies that effectively manage their debt levels and maintain a balanced capital structure are likely to experience improved stock performance. However, those burdened with excessive debt or facing difficulties in servicing their obligations may struggle to regain investor confidence and achieve positive stock performance. Thus, financial leverage can have both positive and negative effects on stock performance during and post the COVID-19 pandemic. While it can enhance returns and shareholder value when used strategically, it also introduces increased risk and volatility (IMF, 2021; Sharjil & Richard, 2021). The impact of FLEV on SP depends on various factors such as industry dynamics, firm-specific circumstances, and overall market conditions.

2.6. Business Risk on Stock Performance during and post COVID-19 Pandemic

Business risk denotes the possibility that a firm’s operations or competitive position may be negatively impacted by various internal and external factors (Andrew, 2022). This risk may have an impact on a firm's SP as well as its financial performance (Chen, 2023; Naik, 2023).

Business risk as hard lots of impact on stock performance as stated by Oikonomou, Brooks, and Pavelin, (2012) that they have: Volatility, which has higher business risk that often leads to greater stock price volatility as investors react to uncertainties surrounding the firm’s future prospects then investor confidence which can erode investor confidence, leading to lower stock prices as investors demand higher returns to compensate for the increased risk. Similarly, cost of capital that is, firms facing higher business risk may find it more expensive to raise capital through equity offerings or debt issuances, impacting their ability to fund growth initiatives and valuation can influence how investors value a firm’s stock, that is, higher perceived risk could lead to decreased valuations compared to firms with lower business risk.

Business risks have performed a crucial part. in shaping SP during and post the COVID-19 pandemic. Operational, financial, market, reputational, and regulatory risks have all influenced investor sentiment and firm valuations. To comprehend these risks are necessary for firms looking to improve their resilience and for investors looking to make wise choices in a changing economic landscape.

2.7. Asset Structure on Stock Performance During and Post COVID-19 Pandemic

Asset structure (ASS) refers to the composition of a firm’s assets, including its tangible and intangible assets (Temuhale & Ighoroje, 2021). Recognizing a firm’s asset structure is essential for investors as it can reveal information about the firm's financial situation., risk profile, and potential for future growth. When analyzing a firm’s stock performance in relation to its asset structure, several key factors come into play. A firm’s asset structure typically includes various types of assets such as cash, accounts receivable, inventory, property, plant, equipment, and intangible assets like patents and trademarks. These assets are crucial for assessing the company's total worth and capacity to produce future cash flows (Santoso et al., 2020; Ukhriyawati et al., 2017).

The allocation of assets within a firm can significantly impact its stock performance. For instance, a company containing a larger percentage of fixed assets such as property and equipment may have different stock performance traits compared to a firm with a greater percentage of liquid assets like cash and marketable securities (Santoso, et. al. 2020). However, the asset structure also influences the ratio of debt financing to equity also known as the debt-to-equity ratio (Koralun-Bereźnicka & Koralu, 2013). A high debt-to-equity ratio resulting from an imbalanced asset structure can indicate higher financial risk, potentially impacting stock performance. Similarly, different industries and sectors have varying asset structures that can influence stock performance. For example, capital-intensive industries such as manufacturing may have different stock performance dynamics compared to technology companies with significant intangible assets (Koralun-Bereznicka, 2013). A well-structured asset base can contribute to a firm's stock performance by providing stability, supporting growth initiatives, and enhancing overall financial resilience. Conversely, an imbalanced or inefficient asset structure may lead to underperformance or increased volatility in stock prices (Temuhale, et. al. 2021).

2.8. Firm Age on Stock Performance during and post COVID-19 Pandemic

Firm age refers to the length of time a company has been in operation since its establishment. It is a measure used to assess the maturity and experience of a business entity. The age of a firm can provide insights into its stability, growth potential, and overall performance (Vora, 2019). Firm age is an important factor in evaluating the success and sustainability of a company. It is often used as an indicator of a firm's ability to withstand economic downturns, adapt to market changes, and maintain customer loyalty (Kücher et al., 2020). Older firms are generally perceived as more established and reliable, while younger firms may be seen as more innovative and agile. The age of a firm can influence various aspects of its operations. For instance, older firms tend to have more extensive networks and relationships with suppliers, customers, and other stakeholders (Lissillour et al., 2024). They may also have accumulated valuable industry knowledge and expertise over time. On the other hand, younger firms may have a greater focus on technology adoption, disruptive business models, and attracting top talent.

2.9. Market Capitalization and Stock Performance during and post COVID-19 Pandemic

Market capitalization, commonly referred to as market cap, serves as a metric for assessing the scale and worth of a company within the financial marketplace (Davis, 2023). The market capitalization of a company is determined by taking the current stock price and multiplying it by the total number of shares available. Investors find this metric crucial for understanding a company's worth and competitiveness in comparison to other companies in the market (Jason, 2023). Market capitalization is significant for several reasons. Firstly, it provides a snapshot of the market's perception of a firm's value. A higher market cap generally indicates that the market believes the firm has strong growth potential and is financially stable. Alternatively, a decreased market capitalization could indicate that the company is less established or more volatile. Market cap is also employed to classify stocks into various groups like large-cap, mid-cap, and small-cap (Luther, 2023). These classifications help investors assess risk and potential returns based on their investment preferences.

COVID-19 pandemic has had a profound impact on market capitalization and stock performance. While many firms experienced declines during the initial phase of the pandemic, others saw significant growth driven by changing consumer behavior and technological advancements. As the global economy continues to recover from the effects of the pandemic, it is likely that market capitalization and SP will remain dynamic and subject to ongoing shifts (Kumar & Kumara, 2021).

2.10. Theoretical Framework

Theoretical Framework on Firm Structural Traits and Stock Performance of Nigerian Firms during and Post COVID-19 Pandemic. The COVID-19 pandemic has had a profound impact on the global economy, and Nigeria is no exception. The pandemic has exposed the vulnerabilities of many Nigerian firms, particularly those with weak structural traits. In this section, we will discuss four theoretical frameworks that can help explain the relationship between firm structural traits and stock performance of Nigerian firms during and post COVID-19 pandemic.

2.11. Resource-Based View (RBV) Theory

Penrose (2009) introduced RBT as a framework for overseeing a company's resources, diversification strategy, and opportunities for efficiency. The concept of a corporation as a unified set of resources to address and analyze how it could reach its objectives and strategic actions was first proposed in Penrose's publication (Penrose, 2009). RBT began to develop in the 1980s. The Theory of the Growth of the Firm laid the groundwork for RBT. In the 1990s, Jay Barney's contributions were instrumental in advancing the field of Resource-Based Theory (RBT) and solidifying its dominance in the realm of strategic planning and management.

The RBV theory posits that FP is determined by the resources and capabilities of the firm (Barney, 2007). This concept states that businesses with special resources and competencies are better equipped to function effectively in emergency situations, like the COVID-19 pandemic. One of the most prevalent viewpoints in strategic management is the firm's resource-based view (RBV) (Makadok, 2001). Fundamentally, the RBV asserts that a firm's resources or collections of resources serve as the foundation for attaining a competitive edge (Peteraf & Barney, 2003). As a framework for describing the circumstances under which a company may acquire a sustainable competitive advantage, the RBV has gained widespread acceptance in the field of strategic management since its inception (Acedo et al., 2006; Wernerfelt, 1984).

During the pandemic, Nigerian firms with strong resource endowments, such as cash reserves, skilled workforce, and diversified product offerings, were better equipped to weather the storm. These firms were able to maintain their operations and continue to generate revenue, even when the pandemic disrupted supply chains and reduced consumer spending.

Moreover, the pandemic has accelerated the adoption of digital technologies in Nigeria, and firms with strong technological capabilities were better positioned to take advantage of these opportunities. For instance, firms with robust e-commerce platforms were able to expand their customer base and increase their sales during the pandemic.

2.12. Dynamic Capabilities Theory

The dynamic capabilities theory was introduced in a working paper by Teece David J., Pisano Gary, and Shuen Amy published in 1997. The dynamic capabilities theory (DCT) posits that firm performance is determined by the ability of the firm to adapt to changing environmental conditions. According to this framework, firms with strong dynamic capabilities, such as the ability to innovate and experiment, were better able to respond to the challenges posed by the pandemic.

During the pandemic, Nigerian firms with strong dynamic capabilities were able to pivot their business strategies and adapt to the new reality of reduced consumer spending and supply chain disruptions. For instance, firms that were able to quickly develop and launch new products or services, such as online delivery services or virtual event platforms, were better able to maintain their market share and profitability.

2.13. Empirical Review

The COVID-19 epidemic has had a significant effect on the world economy, as well as the stock performance in Nigeria. The study examined various empirical studies that look at the connection between firm structural characteristics and stock performance of Nigerian firms both during and after the COVID-19 pandemic are reviewed in this part.

Ncube et al. (2023) examined the relationship between SP and the COVID-19 pandemic: Evidence from Sub-Saharan African equity markets. According to the results, the majority of stocks in the Nigerian and South African markets saw notable positive anomalous returns during the COVID-19 pandemic. The Zambian and Zimbabwean markets, however, produced a range of results, with some sectors reporting negative abnormal returns and others recording positive abnormal returns. Additionally, outside of the South African market, it was found that the IT, consumer staples, and healthcare sectors performed better during the pandemic than the real estate, materials, and industrial sectors. In sub-Saharan stock markets, the financial and consumer discretionary sectors have proven to be the most resilient, with steady performance throughout the pandemic.

Zoungrana et al. (2023) conducted a study on the association between the COVID-19 outbreak and stock returns on the stock market of the West African Economic and Monetary Union is empirically examined using an event research methodology. Measuring the relationship between the emergence of COVID-19 and the

stock returns of companies registered on the WAEMU stock market was the aim of the empirical inquiry. This study takes into account two event dates and employs an event method based on a GARCH procedure. The results show that the outbreak's January 23, 2020 emergence had very little impact on the WAEMU stock market. Not even the pandemic's arrival in Africa significantly altered the market. On the other hand, since the first case appeared in the WAEMU on March 2, 2020, the union's stock market as a whole, as well as the sectoral indices of industry, finance, and distribution, have been vulnerable to COVID-19. The distribution companies felt this adverse effect considerably more.

Baker et al. (2020) examined the short- and medium-term macroeconomic impacts of uncertainty brought on by COVID-19. metrics of stock market volatility, newspaper-based metrics, and survey responses on business expectations were used to characterize these uncertainty. To investigate these uncertainties, an empirical model was estimated in the research. According to the findings, the real gross domestic product (GDP) of the United States of America would have shrunk by almost 11% year over year in the last quarter of 2020. This suggests that the economy is negatively impacted by the uncertainty caused by COVID-19.

Adenomon et al. (2022) conducted research on how the Nigerian Stock Exchange's performance was impacted by the COVID-19 outbreak, utilizing GARCH Models. Data for this study was gathered from www.investing.com, focusing on the Daily All Share Price (ASP) of the NSE from March 2, 2015, to April 16, 2020, resulting in a total of 1270 data points. The period was used to avoid the effect of the 2008 to 2009 global financial crisis. The results indicate that the average returns are in the negative territory, indicating a decrease in stock value. The returns are also skewed and have a leptokurtic distribution, meaning they have a high peak and fat tails. Additionally, the returns were compared between the non-COVID-19 and COVID-19 periods. It was observed that during the COVID-19 period, returns showed higher volatility compared to the non-COVID-19 period. Finally, when looking at the returns for the entire sample, as well as for the non-COVID-19 and COVID-19 periods, evidence of ARCH effects was detected.

Golubeva (2021) carried out research on how companies performed during the COVID-19 pandemic across 13 countries globally. They examined a dataset from the WBES that assessed the effects of the pandemic on businesses. The goal of this research is to investigate how various indicators related to individual companies, financial factors, and country-specific circumstances affect the performance of businesses during the COVID-19 pandemic. A regression model is utilized in the study to analyze the performance of enterprises amid the COVID-19 crisis. The inquiry was conducted using the data gathered from 5,730 businesses in 13 countries through the World Bank's enterprise surveys. The author tested relatively new factors in addition to analyzing conventional performance metrics. The importance of a number of elements for business performance is supported by this study, including size, export involvement, sector, and consumer demand for the products of the company. During the coronavirus pandemic, equity donations, company cash balances, and debt are the most reliable financing options. However, government support has not yet been verified as a substantial source of funding. The study also highlights the significance of national characteristics for business performance, such as the infrastructure of corporate governance and the degree of economic growth.The findings of the study may help corporations, legislators, and regulatory agencies develop corporate and public governance plans for future emergency preparedness and response. With cross-national empirical data, this research is one of the first empirical studies in the management field to examine the effect of COVID-19 on business performance. According to the study, loan financing becomes more crucial when productivity changes are taken into account, while a liquidity buffer is a significant component when company closure or openness is utilized as a dependent variable. This empirical result can be described as follows: banks can scarcely consider lending to a closed company, but they can offer loans to the performing entities; at the same time, the current liquidity buffer can delay such a decision when considering company closures. Golubeva added that COVID-19 had a negative impact on businesses, but she also pointed out that the impact may vary depending on the industry.

Al Amosh & Khatib (2023) Evidence from G20 countries on the influence of COVID-19 on financial and ESG performance. All nations in the globe experienced the biggest health epidemic of the twenty-first century during the pandemic, which had an impact on business performance and placed them in a challenging position due to the growing uncertainty. Our research assesses how the COVID-19 epidemic affected businesses' financial performance as well as how environmental, social, and governance (ESG) performance affected this relationship. Descriptive statistics, a correlation matrix, fixed effect regression, and robust regression using the

GMM model were among the statistical analyses used on a large international panel dataset that includes nine G20 countries and was taken from the Thomson Reuters EIKON database for the years 2016–2021. The results show that financial performance was severely impacted by the epidemic, but that this effect was mitigated by ESG performance. Therefore, during the epidemic, businesses who participate in ESG initiatives are the least impacted. Fulfilling stakeholder demands enhances a business's effectiveness during challenging periods, with executives utilizing ESG achievements as a powerful strategy to mitigate the impact of COVID-19 on financial results. This study demonstrates that while adopting ESG practices is expensive, it benefits stakeholders and helps businesses make money. It also demonstrates that compliance with ESG issues can lessen adverse financial effects during crises. The findings also demonstrate that the COVID-19 pandemic has a negative impact on ROA, ROE, and EPS metrics, suggesting that its persistence may hinder businesses' capacity to maintain their high market performance. However, the findings indicate that by lessening the adverse effects of the COVID-19 pandemic, moderating ESG performance may provide a chance for businesses to accomplish their objectives during the pandemic.

Ogbebor et al. (2021) conducted a study on stock returns, inflation and interest rate In Nigeria. The universal Fisher effect has sparked widespread debate globally, much like the scenario in Nigeria, where research has shown that there is no long-term correlation between inflation and stock returns. However, other studies have found that there is only a one-way causal relationship between money flow and stock returns, meaning that changes in the flow of money will significantly affect stock returns but not the other way around. In order to test the Fisherian theory, this study looked at the relationship between interest rates, inflation, and stock returns in Nigeria. According to the Fisherian theory of interest, nominal interest rates and stock returns would both fluctuate in proportion to changes in the value of money over time. This study examined the hypothesis's viability in Nigeria, a small open economy.For robustness, a variety of descriptive and inferential econometric methods were used. The results showed a long-term link between the chosen series, which is consistent with the theoretical premise of the Fisherian theory of interest. In particular, the study discovered that over the long term, there is a positive and significant correlation between the price level coefficient and the stock price. Thus, there is ample evidence supporting the Fisherian hypothesis in the conducted studies, which come to the conclusion that common stocks are, in fact, a good hedge against inflation in Nigeria.

3. Methodology

3.1. Research Design

The research utilized quantitative methods to analyze how organizational characteristics impact strategic performance, specifically through pairwise comparisons. The pairwise comparison method involves comparing the performance of each period sampled. According to Nikolić (2007), pairwise comparison is a method used to evaluate different time periods by comparing them in pairs to determine which period is more favorable or has a higher level of a particular quantitative attribute, as well as to ascertain if one group of companies performs better than another during that period. To achieve this, the study intends to adopt longitudinal and *ex post facto* research design. The justification for the designs is to provide a robust framework for analyzing firm specific data that already exist and identifying trends (Jongbo, 2014).

3.2. Population of the Study

This study includes all service sector firms that are listed on the Nigerian Exchange Group (NGX). As of December 31, 2022, there are a total of 21 service sector firms listed on the Nigerian Exchange Group.

3.3. Sample Size and Sampling Technique

The goal of the research is to explore how different characteristics of companies can affect their stock performance both during and following the COVID-19 outbreak. The specific firm traits considered in this study are return on asset, firm size, firm leverage, business risk, asset structure, firm age and market capitalization. To conduct this research, a sample of 21 service sector firms with available and accessible annual reports that covered the study period of 2020, 2021, 2022 and 2023 was used, thus the study acknowledged 2020-2021 as covid year, while 2022-2023 as post covid year. However, 17 firms were selected from the population of service sector firms that existed during and post COVID-19 pandemic period.

The sampling technique employed for this study was the stratified random sampling According to Hussain et al. (2022) stratified random sampling involves dividing a varied population into distinct groups known as strata. Each of these groups is uniform in nature, and a sample is then selected from each stratum individually.

3.4. Data Collection

The research utilized secondary data from the annual reports and accounts of service sector companies listed on the Nigerian Exchange Group (NGX) to conduct the study. Financial data for Nigerian firms was collected for the years 2020, 2021, 2022 and 2023. The data include variables such as return on asset (e.g., profit before tax-to-total assets), firm size (e.g., total assets), financial leverage (e.g., debt-to-equity ratio), business risk (e.g., efficiency ratio), assets structure (e.g., non-current asset), firm age (e.g., age of firm incorporation), and market capitalization (e.g., market capitalization price of firm). The data was obtained from reliable sources such as financial reports, stock exchange databases, and reputable research publications.

The collected data for each variable was compared for during and post covid period between 2020 and 2021, then 2022 and 2023 using generalized method of moments (GMM).

3.5. Data Analysis

The panel data regression model was estimated using appropriate statistical software. Descriptive statistics and correlation were utilized in testing the analysis to confirm the accuracy of the findings. The study uses internal consistency to conduct a thorough test on the correlation between company structural characteristics and SP both during and post the COVID-19 crisis. This test aims to assess the reliability and consistency of the data collected for the analysis. The statistical analysis to assess the relationship between firm structural traits and stock performance during and after the COVID-19 pandemic was the GMM regression analysis. Regression analysis allows for the estimation of the impact of independent variables (firm structural traits) on a dependent variable (stock performance). The use of GMM is suitable for this analysis due to its ability to handle endogeneity and serial correlation issues. By incorporating the weighted scores from the pairwise comparison method, the GMM model provides a more nuanced understanding of how each firm trait influences stock performance.

Supporting the use of GMM, Silva & Tenreyro (2006) argue that GMM estimators are robust in the presence of heteroskedastic errors, making them preferable over traditional OLS estimators in financial studies. Additionally, Arnold & Crack (1999) provide practical guidance on implementing GMM, highlighting its effectiveness in addressing issues related to over-identified models and endogeneity

3.6. Model Specification

The research will use panel data regression analysis to examine how company characteristics are connected to the performance of stocks before and after the Covid-19 pandemic. The model can be specified as follows:

$$SP1 = \beta0 + \beta1ROA1 + \beta2FSize1 + \beta3FLev1 + \beta4Bur1 + \beta5Ass1 + \beta6Fage1 + \beta7Mac1 + \varepsilon$$ ……During COVID-19 Model 1

$$SP2 = \beta0 + \beta1ROA2 + \beta2FSize2 + \beta3FLev2 + \beta4Bur2 + \beta5Ass2 + \beta6Fage2 + \beta7Mac2 + \varepsilon$$ ……..Post COVID-19 Model 2

Where:
SP = Stock Performance

ROA = Return on Asset

FSize = Firm Size

FLev = Financial Leverage

Bur = Business Risk

Ass = Asset Structure

Fage = Firm Age

Mac = Market Capitalization

$\beta 0$ to $\beta 7$ = Constant term and regression coefficients

ε = error term

3.7. Test of Significance

The significance of the test was determined at a significance level of 5% by examining the coefficient of the independent variable. The Rule followed stated that the Null hypothesis should be rejected if the t-prob is less than 0.05, but accepted if the t-prob is greater than 0.05. In simpler terms, the Null hypothesis is rejected if t-prob is less than 0.05, and accepted if t-prob is greater than 0.05.

3.8. Test of Hypothesis

The hypothesis was evaluated by analyzing t-statistics probability: Disprove the null hypothesis if the probability of t-statistics is below 0.05, otherwise approve the null hypothesis if the probability of t-statistics is higher than 0.05.

4. Results and Discussion

4.1. Research Results

Table 1. Summary of Descriptive Statistics

Covid-19 Service Sector						Post Covid-19 Service Sector					
Variables	Mean	Max	Min	Std. Dev.	Obs.	Variables	Mean	Max	Min	Std. Dev.	Obs.
SP1	9.582647	97.00000	0.620000	22.23178	136	SP2	10.21816	106.0000	0.610000	24.68350	136
ROA1	0.570610	28.68679	-0.01021	3.685291	136	ROA2	0.503756	46.62637	-0.00351	4.206767	136
FSIZE1	2.70E+08	3.38	238745.0	7.06E+08	136	FSIZE2	2.98E+08	2.69E+09	213892.0	7.18E+08	136
FLEV1	3.199216	85.40189	0.002558	8.192254	136	FLEV2	3.322612	60.16652	0.002476	7.803582	136
ASS1	1.69E+08	2.22E+09	198813.0	4.60E+08	136	ASS2	2.01E+08	2.06E+09	186533.0	5.22E+08	136
BUR1	0.613427	26.02427	0.001086	2.335058	136	BUR2	0.331450	1.540958	0.005751	0.326709	136
FAGE1	37.08824	64.00000	11.00000	16.81863	136	FAGE2	38.85294	66.00000	13.00000	16.49086	136
MAC1	5.93E+10	9.22E+11	6.13E+08	2.17E+11	136	MAC2	5.93E+10	9.22E+11	6.13E+08	2.17E+11	136

Note: 1 denote Covid-19 Pandemic and 2 denotes post Covid-19 Pandemic.

Source: Authors' Computation, 2024

Table 1 indicates the summary of descriptive analysis for during and post covid-19 of stock performance. During COVID-19, the mean stock performance (SP1) was 9.58, with the highest value at 97.00 and the lowest at 0.62. The standard deviation was 22.23 across 136 observations, indicating significant volatility due to the uncertainty and market disruptions caused by the pandemic. Post-COVID-19 (SP2), the mean stock performance increased slightly to 10.22, with the highest value at 106.00 and the lowest at 0.61. The higher standard deviation of 24.68 suggested continued volatility, even though there was an overall improvement in average stock returns. Financial leverage (FLEV1) during COVID-19 had a mean of 3.20, with a maximum of 85.40 and a minimum of 0.0025, showing a high range across firms. The standard deviation was 8.19, reflecting disparate financial strategies. Post-COVID-19 (FLEV2), leverage remained stable with a mean of 3.32, a maximum of 60.17, and a minimum of 0.0025. The standard deviation slightly decreased to 7.80, indicating less extreme borrowing and greater caution in financial strategies.

During COVID-19, the mean firm size (FSIZE1) was 2.70E+08, with a maximum of 3.38E+09 and a minimum of 238745.0. The high standard deviation of 7.06E+08 indicated substantial variation in firm sizes. Post-COVID-19 (FSIZE2), the mean firm size increased to 2.98E+08, with a maximum of 2.69E+09 and a minimum of 213892.0. The standard deviation remained high at 7.18E+08, showing that both large and small firms continued to coexist in the service sector. Asset structure (ASS1) during COVID-19 had a mean of 1.69E+08, with a maximum of 2.22E+09 and a minimum of 198813.0, indicating variation in asset types and scales across firms. The standard deviation was 4.60E+08. Post-COVID-19 (ASS2), the mean asset structure

increased slightly to 2.01E+08, with a maximum of 2.06E+09 and a minimum of 186533.0. The standard deviation increased to 5.22E+08, reflecting firms' adjustments to their asset portfolios in response to changing conditions.

During COVID-19, business risk (BUR1) had a mean of 0.61, with a maximum of 26.02 and a minimum of 0.0011. The standard deviation was 2.34, indicating significant risk variation across firms. Post-COVID-19 (BUR2), the mean business risk decreased to 0.33, with a maximum of 1.54 and a minimum of 0.0058. The standard deviation dropped to 0.33, suggesting the service sector became less risky, possibly due to better risk management and a more stable environment. The mean firm age (FAGE1) during COVID-19 was 37.09 years, with a maximum of 64 years and a minimum of 11 years. The standard deviation was 16.82, indicating a mix of older and younger firms. Post-COVID-19 (FAGE2), the mean firm age increased to 38.85 years, with a maximum of 66 years and a minimum of 13 years. The standard deviation slightly decreased to 16.49, showing that the age distribution of firms remained relatively stable.

Market capitalization (MAC2) during and post-COVID-19 had a mean of 5.93E+10, with a maximum of 9.22E+11 and a minimum of 6.13E+08. The standard deviation was 2.17E+11, indicating notable market cap volatility. Conclusively, both during and after the COVID-19 pandemic, the service sector faced significant volatility and risk. However, the post-pandemic period showed signs of recovery, with improved average stock returns, more cautious financial strategies, and better risk management. Despite continued volatility, the stability in firm sizes and market capitalization suggested resilience and adaptation within the sector.

Table 2. Correlation Analysis: Service Sector

Covariance Analysis: Spearman rank-order
Date: 11/17/24 Time: 17:31
Sample: 1 136
Included observations: 136

Correlation Observations	SP1	ROA1	FLEV1	FSIZE1	ASS1	BUR1	FAGE1	MAC1
SP1	1.000000							
ROA1	0.190860	1.000000						
FLEV1	-0.215930	0.006090	1.000000					
FSIZE1	-0.122403	-0.064478	0.849848	1.000000				
ASS1	-0.040022	0.020383	0.002598	-0.047000	1.000000			
BUR1	0.126965	0.122361	-0.316724	-0.281550	0.267963	1.000000		
FAGE1	-0.264369	0.235008	0.291671	0.254012	-0.147382	-0.196280	1.000000	
MAC1	-0.139127	-0.173434	0.138876	-0.069543	0.124725	0.128064	0.421032	1.000000

Covariance Analysis: Spearman rank-order
Date: 11/17/24 Time: 17:38
Sample: 1 136
Included observations: 136

Correlation Observations	SP2	ROA2	FLEV2	FSIZE2	ASS2	BUR2	FAGE2	MAC2
SP2	1.000000							
ROA2	-0.000903	1.000000						
FLEV2	-0.102884	-0.042341	1.000000					
FSIZE2	-0.101846	-0.045691	-0.010305	1.000000				
ASS2	-0.096968	-0.041968	-0.005828	0.980197	1.000000			
BUR2	-0.035908	0.028755	0.460024	-0.280565	-0.269696	1.000000		
FAGE2	-0.217045	0.086267	0.214039	-0.286193	-0.271243	0.340284	1.000000	
MAC2	0.980091	-0.030258	-0.081384	-0.066569	-0.061850	0.002547	-0.172825	1.000000

Note: 2 denote Post Covid-19 pandemic

Source: Authors Analysis Computation (2024)

Table 2 show the correlation analysis indicated that during COVID-19 pandemic, stock performance (SP1) was weakly negatively correlated with firm size (FSIZE1) (-0.12), suggesting larger firms did not necessarily outperform smaller ones. Stock performance showed a moderate positive correlation with return on assets (ROA1) (0.19), indicating firms with better profitability had more stable stock prices. Financial leverage (FLEV1) strongly correlated with asset structure (ASS1) (0.85), but weakly negatively correlated with stock performance (SP1) (-0.22), implying higher leverage led to weaker stock performance. While the post-COVID-19, stock performance (SP2) strongly correlated with market capitalization (MAC2) (0.98), indicating larger firms fared better in recovery. The correlation between stock performance and return on assets (ROA2) was near zero (0.0009), suggesting profitability's reduced importance. Financial leverage (FLEV2) had a higher

positive correlation with business risk (BUR2) (0.46), reflecting increased risk with high leverage. Firm size (FSIZE2) and asset structure (ASS2) maintained a strong correlation (0.98), showing larger firms were better positioned for recovery.

Table 3. Regression Analysis on Service Sector

Covid-19 Service Sector				
Dependent Variable: SP1				
Method: Panel Generalized Method of Moments				
Date: 11/22/24 Time: 18:01				
Sample: 2020Q1 2021Q4				
Periods included: 8				
Cross-sections included: 13				
Total panel (balanced) observations: 104				
2SLS instrument weighting matrix				
Instrument specification: C ROA1 LFSIZE1 FLEV1 BUR1 ASS1 FAGE1 MAC1				
Constant added to instrument list				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-986.4887	168.6881	-5.848006	0.0000
ROA1	-4.757445	9.911078	-0.480013	0.6314
FSIZE1	-50.06110	16.02574	-3.123793	0.0019
FLEV1	-1.277950	3.427286	-0.372875	0.7094
BUR1	-4.802564	6.503307	-0.738480	0.4605
ASS1	25.85123	15.95552	1.620206	0.1057
FAGE1	-3.111249	0.833044	-3.734795	0.0002
MAC1	70.94558	6.700121	10.58870	0.0000
R-squared	0.176508	Mean dependent var		114.8362
Adj R-squared	0.167612	S.D. dependent var		467.8835
S.E. of regression	426.8750	Sum squared resid		19.84181
Durbin-W stat	0.246063	J-statistic		1.18E+08
Post Covid-19 Service Sector				
Dependent Variable: SP2				
Method: Panel Generalized Method of Moments				
Date: 11/22/24 Time: 18:05				
Sample: 2022Q1 2023Q4				
Periods included: 8				
Cross-sections included: 13				
Total panel (unbalanced) observations: 103				
2SLS instrument weighting matrix				
Instrument specification: C ROA2 FSIZE2 FLEV2 BUR2 ASS2 FAGE2 MAC2				
Constant added to instrument list				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-288.4913	16.53924	-17.44283	0.0000
ROA2	0.164013	0.246089	0.666478	0.5063
FSIZE2	-2.665594	2.499960	-1.066255	0.2883
FLEV2	-0.575819	0.149363	-3.855151	0.0002
BUR2	8.663218	3.655066	2.370195	0.0193
ASS2	1.233253	0.973805	1.266426	0.2077
FAGE2	0.052989	0.070232	0.754480	0.4519
MAC2	13.32362	0.643565	20.70285	0.0000
R-squared	0.787521	Mean dependent var		10.21816
Adj R-squared	0.775901	S.D. dependent var		24.68350
S.E. of regression	11.68495	Sum squared resid		17476.87
Durbin-W stat	0.195199	J-statistic		9.09E-20

Source: Authors computation using Econometric Views Version 9, 2024

Table 3 reveals the regression result during and post COVID-19, the regression model during COVID-19had low explanatory power with an R-squared of 0.1765 and Adjusted R-squared of 0.1676. Post-pandemic, these values improved significantly to 0.7875 and 0.7759, indicating a stronger model fit. The Durbin-Watson Statistic (DW) during COVID-19 was 0.2461, indicating strong positive serial correlation, which improved slightly post-pandemic to 0.1952. The J-statistic during COVID-19 was 1.18E+08, suggesting issues with over-identification, which improved post-pandemic to 9.09E-20. Stock Performance (SP) during COVID-19 had a significant decline with a coefficient of -986.4887 ($p = 0.0000$), while post-pandemic decline moderated to -288.4913 ($p = 0.0000$). Firm Size (FSIZE) had a significant negative impact during COVID-19 (-50.06110, $p = 0.0019$) but was insignificant post-pandemic (-2.665594, $p = 0.2883$).

Financial Leverage (FLEV) had an insignificant impact during COVID-19 (-1.277950, p = 0.7094) but was significant and negative post-pandemic (-0.575819, p = 0.0002). Business Risk (BUR) was insignificant during COVID-19 (-4.802564, p = 0.4605) but significant and positive post-pandemic (8.663218, p = 0.0193). Market Capitalization (MAC) remained a crucial positive factor both during (70.94558, p = 0.0000) and post-pandemic (13.32362, p = 0.0000). The model's explanatory power improved post-pandemic, reflecting increased predictability and stabilized economic conditions.

4.2. Test of Hypothesis

4.2.1. H_{O1}: ROA has no significant effect on stock performance of Nigerian firms during and post COVID-19 pandemic.

During the pandemic, Return on Assets (ROA) had a moderate positive correlation (0.19) with stock performance (SP1), suggesting that firms with better profitability managed more stable stock prices. However, post-pandemic, this correlation almost vanished (0.0009), indicating that profitability became less important for stock performance. Thus, ROA did have a significant effect during the pandemic but not post-pandemic.

4.2.2. H_{O2}: Firm size has no significant effect on stock performance of Nigerian firms during and post COVID-19 pandemic.

Firm size (FSIZE) had a weak negative correlation (-0.12) with stock performance (SP1) during the pandemic, meaning larger firms did not necessarily outperform smaller ones. During the recovery phase, firm size (FSIZE2) had an insignificant effect (-0.2883). This suggests that firm size was somewhat important during the pandemic but became less critical post-pandemic.

4.2.3. H_{O3}: Financial leverage has no significant effect on stock performance of Nigerian firms during and post COVID-19 pandemic.

Financial leverage (FLEV) during the pandemic had an insignificant impact on stock performance (-1.277950, p = 0.7094). However, post-pandemic, its impact became significant and negative (-0.575819, p = 0.0002), indicating that higher leverage negatively impacted stock performance more after the pandemic.

4.2.4. H_{O4}: Business risk has no significant effect on stock performance of Nigerian firms during and post COVID-19 pandemic.

Business risk (BUR) during the pandemic showed an insignificant effect on stock performance (-4.802564, p = 0.4605). However, post-pandemic, the effect turned significant and positive (8.663218, p = 0.0193), suggesting that firms with higher business risk performed better after the pandemic.

4.2.5. H_{O5}: Asset structure has no significant effect on stock performance of Nigerian firms during and post COVID-19 pandemic.

Asset structure (ASS) during the pandemic had an insignificant positive effect on stock performance (25.85123, p = 0.1057). Post-pandemic, this effect remained insignificant (1.233253, p = 0.2077), indicating that asset structure had minimal impact in both periods.

4.2.6. H_{O6}: Firm age has no significant effect on stock performance of Nigerian firms during and post COVID-19 pandemic.

Firm age (FAGE) had a significant negative effect on stock performance during the pandemic (-3.111249, p = 0.0002), indicating that younger firms performed better. Post-pandemic, this effect became insignificant (0.052989, p = 0.4519), showing that firm age had little impact on stock performance after the pandemic.

4.2.7. H_{O7}: Market capitalization has no significant effect on stock performance of Nigerian firms during and post COVID-19 pandemic.

Market capitalization (MAC) had a significant positive impact on stock performance both during (70.94558, p = 0.0000) and post-pandemic (13.32362, p = 0.0000). This highlights the continued importance of market capitalization in determining stock performance.

In furtherance of the test of hypothesis, some hypotheses held true during the pandemic, but their significance changed post-pandemic. Financial leverage and business risk became more critical factors in the recovery phase, while firm size and age became less relevant. Market capitalization consistently played a

significant role in stock performance during both periods. The model's explanatory power improved significantly post-pandemic, reflecting increased predictability and more stabilized economic conditions.

4.3. Discussion

The study reveal that during COVID-19 pandemic, Return on Assets (ROA) had a moderate positive correlation with stock performance for Nigerian firms. This means that companies with higher profitability managed to maintain more stable stock prices during this tumultuous period. However, as the pandemic subsided, this correlation almost disappeared. In practical terms, this suggests that profitability was a key factor in stabilizing stock prices during the crisis, but as the economy began to recover, other factors gained prominence, and profitability became less influential.

On the examination of firm size, there was a weak negative correlation with stock performance during the pandemic, indicating that larger firms did not necessarily perform better than smaller ones. Post-pandemic, the effect of firm size on stock performance became insignificant. This implies that while firm size played some role during the crisis, it became less relevant as the market began to recover. For businesses, this highlights the importance of agility and adaptability over sheer size during uncertain times.

Financial leverage had an insignificant impact on stock performance during the pandemic. However, post-pandemic, it became a significant negative factor. This means that higher leverage negatively affected stock performance more after the pandemic. For firms, this underscores the importance of managing debt levels carefully, especially in a recovering economy, as excessive leverage can lead to poorer stock performance.

Business risk showed an insignificant effect on stock performance during the pandemic but turned into a significant positive factor post-pandemic. This suggests that firms with higher business risk performed better after the pandemic. Practically, this indicates that taking calculated risks could pay off in a recovering market, as investors may reward firms that are willing to innovate and take bold steps.

Asset structure had an insignificant positive effect on stock performance during the pandemic, and this effect remained insignificant post-pandemic. This shows that asset structure had minimal impact on stock performance during both periods. Firms should note that while asset structure is important, other factors may play a more critical role in influencing stock performance.

Firm age had a significant negative effect on stock performance during the pandemic, indicating that younger firms performed better. Post-pandemic, this effect became insignificant, suggesting that firm age had little impact on stock performance after the pandemic. For investors, this highlights the potential of younger firms during crises, but also the need to evaluate firms based on current performance rather than historical age post-crisis.

Lastly, market capitalization consistently played a significant role in determining stock performance during both the pandemic and post-pandemic periods. This highlights the continued importance of market capitalization in the eyes of investors, suggesting that firms with larger market caps tend to have better stock performance regardless of the economic climate.

The study findings reveal that while some factors like profitability and firm size played critical roles during the pandemic, their significance diminished post-pandemic. Conversely, financial leverage and business risk became more important in the recovery phase. These insights can help firms and investors make more informed decisions by understanding how different factors influence stock performance in varying economic conditions.

5. Conclusion

The study concluded that during the pandemic, profitability (ROA) was crucial for stock performance, but its significance diminished post-pandemic. Firm size had a minor impact during the pandemic and became less relevant in the recovery phase. Financial leverage had an insignificant impact during the pandemic but negatively affected stock performance post-pandemic. Business risk showed no impact during the pandemic but became a positive factor post-pandemic. Asset structure had minimal influence on stock performance in

both periods. Firm age had a significant negative impact during the pandemic but became insignificant post-pandemic. Market capitalization consistently played a significant role in stock performance throughout both periods. These findings highlight the dynamic nature of these factors, offering valuable insights for firms and investors to make informed decisions under varying economic conditions.

Based on these findings, several recommendations were formulated. During the pandemic, firms should focus on maintaining strong profitability to stabilize stock prices, while post-pandemic, they should diversify their focus beyond profitability as other factors become more influential. Regardless of size, firms should prioritize agility and adaptability during crises, and post-pandemic, they should continue focusing on operational efficiency and strategic agility rather than sheer size. Firms should prudently manage debt levels during the pandemic to avoid negative impacts on stock performance, and post-pandemic, reducing leverage where possible is advisable to mitigate negative effects. During the pandemic, firms should emphasize risk management to minimize adverse effects, while post-pandemic, taking calculated risks can be beneficial, as firms that innovate and make bold decisions may be rewarded in a recovering market. Maintaining a balanced asset structure is important in both periods, although other factors may play a more critical role in stock performance. Younger firms should leverage their agility and innovation during the pandemic to outperform older counterparts, while post-pandemic, investors should assess firms based on current performance and adaptability rather than historical age. Lastly, firms should continue implementing strategies that enhance market capitalization, as it consistently plays a significant role in stock performance regardless of economic conditions.

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