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Firm Traits And Stock Performance: A Study Of Industrial Goods Firms During And Post Covid-19 Pandemic

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Abstract: *The study investigated the effect of firm structural traits on stock performance during and post pandemic. Stock prices can be influenced by a firm's value, which is influenced by performance. A firm's stock performance is proportionate and a relative measure of a firm's value. The study made use of quantitative research by adopting the use of a pairwise comparison method. To achieve this, the study intends to adopt a longitudinal and ex post facto research design. The population of this study consists of the 13 industrial goods firms listed on the Nigerian Exchange Group (NGX). 11 industrial goods firms were sampled with available and accessible annual reports, thus the study acknowledged 2020-2021 as COVID year, while 2022-2023 as a post-COVID year. The result showed that ROA significantly improved stock performance during COVID-19, while post COVID-19, ROA's impact dropped to a statistically insignificant level, suggesting that investors were concentrating on more general recovery criteria. the study concluded that stock performance drivers in the industrial goods sector before and after COVID-19 revealed notable shifts in investor priorities and corporate dynamics. it was recommended that firms should think about diversifying their performance metrics after the pandemic.*

Keywords: Firm Traits, Stock Performance, Covid-19 Pandemic. Business Risk, Asset Structure

Introduction

The stock market has been disturbed by the coronavirus pandemic (COVID-19), which has affected the stock performance of the majority of companies. COVID-19 has had a significant negative impact on several businesses because of its policies about face masks, distance, and other measures. Some businesses were forced to close, while others continued to operate while adhering to these policies while doing their production. The world, especially Nigeria, was severely disrupted by the COVID-19 pandemic. Negative social, health, environmental, and political consequences that affected people's lives followed its effects on global economic performance (Amosh & Khatib, 2023; Ramya & Baral, 2021).

Thus, understanding the elements that influence a company's stock performance both during and after a crisis is crucial for investors, policymakers, and corporate stakeholders as businesses deal with the difficulties brought on by the epidemic. According to Anyanwu and Augustine (2020), prior studies conducted in Nigeria have shown the importance of firm structural features in explaining many facets of business behavior and performance.

Stock prices can be influenced by a firm's value, which is influenced by performance. A firm's stock performance is proportionate and a relative measure of a firm's value. According to Sukesti et al. (2021), a firm with a high stock price in the stock exchange is displaying a competitive advantage in stock performance. Businesses must be able to manage and differentiate themselves from rivals to succeed. If they want to maintain or improve their market positions, they must restructure their business models and search for a stronger advantage. A competitive advantage in luring investors to a business is a strong performance record. Since businesses are typically founded to turn a profit on their investment, every company will work to enhance the performance of its stocks on the stock exchange. The study aims to provide reasonable insight into the effect of firm traits and the stock performance of firms in the industrial sector.

Literature Review

Concept of Firm Structural Traits

Firm traits are the managerial and demographic traits of the company, which together make up the internal environment of the company (Chinedu & Chinedu, 2018). Firm traitss include turnover, revenue growth, asset growth, leverage, liquidity, and firm size (Kogan & Tian, 2012). Khalil (2011) lists ownership structure, board composition, firm age, dividend distribution, profitability, capital market accessibility, and expansion prospects as additional firm attributes. Several firm traits vary consistently amongst firms.

Concept of COVID-19 Pandemic

The COVID-19 pandemic is a disease outbreak that causes health problems and kills a lot of people. Many countries around the world were impacted by COVID-19, and as a result, countries like Nigeria, Japan, South Korea, Germany, Britain, the United States, Australia, and others implemented quarantine legislation. Companies in these countries and areas also had to deal with the COVID-

19 consequences, focus on improving their ability to handle unforeseen major disasters, and apply management improvement methods to comply with the government's quarantine requirements. Therefore, the results of implementing management improvement actions and enhancing business flexibility can serve as a roadmap for companies in other countries. Businesses' operations, sales, and output were severely impacted by the global blockade and economic shutdown caused by the COVID-19 pandemic, which resulted in a decline in firm performance (FPD) (Rai et al., 2021).

Profitability on Stock Performance During and Post COVID-19 Pandemic

The ability of a business to turn a profit from its operations is referred to as profitability. Financial ratios like profit margin, return on equity (ROE), return on assets (ROA), and earnings per share (EPS) are commonly used to measure it. These ratios provide insights into a firm's efficiency, effectiveness, and overall financial health. Profitability is a key factor that influences stock performance during and after the COVID-19 pandemic (Qadri, et al.,, 2022). The epidemic has had a substantial influence on global economies, producing disruptions in different businesses and financial markets. Investors and analysts must comprehend the connection between profitability and stock performance during this time (Qadri, et al., 2022).

The pandemic's effects on profitability differed by industry. Demand rose and profitability improved in a few areas, including technology, e-commerce, healthcare, and some consumer goods sectors. This was driven by variables such as remote work patterns, increased internet buying, healthcare needs, and necessary commodities consumption. In terms of stock performance, companies that were highly profitable during the pandemic typically outperformed their counterparts. Businesses that can sustain or increase their profitability even during difficult times are typically preferred by investors. These businesses exhibit resilience and are more equipped to deal with ambiguity (Wang et al., 2022).

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

In various empirical literature, firm size has been considered one of the most important variables (Adebayo, et al., 2022). However, research on the effect of company size has yielded conflicting findings; some find little to no impact, while others support it. According to Adebayo et al. (2022), it has been shown that debt has a negative mediating effect on the link between business size and financial performance. According to Ishak et al. (2018), agency difficulties are more likely to arise for large organizations. It would be difficult to oversee the operations of a larger organization, particularly when a business line is expanded.

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

The term leverage refers to any technique that uses debt (borrowed funds) rather than fresh equity (value of owned assets minus liabilities) in the purchase of an asset with the expectation that the after-tax profit to equity holders from the transaction will exceed the borrowing cost, often by several factors. Hayes (2021) and Ofulue, et al. (2022). The acquired asset must typically be offered as collateral security for the loan, and the lender will typically place a cap on the amount of risk it is willing to accept and the amount of leverage it will allow (Damodaran, 2011). Gains can be doubled by financial leveraging, but losses can also be multiplied. Leverage carries the danger of causing a loss if financing costs are higher than asset income or if the asset's value declines (Damodaran, 2011).

Financial leverage has affected stock performance since the COVID-19 pandemic, and this trend is predicted to continue, while it could also be impacted by other aspects of the corporate climate. Companies that have a lot of leverage may find it challenging to get more as economies improve and business operations pick back up. This could depend on how well the company does in the post-COVID-19 era (Sharjil & Richard, 2021).

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

Business risk is the potential for a variety of internal and external events to adversely affect a company's operations or competitive position (Andrew, 2022). Business risk has a significant impact on stock performance. Businesses hoping to sustain steady and favorable stock performance must carefully consider the elements that contribute to company risk and put policies in place to reduce these risks. Businesses and financial markets around the world have been significantly impacted by the COVID-19 pandemic (Wu et al., 2022). During this period, there has been a great deal of volatility and uncertainty, especially in the stock market (Wu et al., 2022). WHO (2020) reports that the COVID-19 pandemic has caused major disruptions in several industries and had a dramatic effect on enterprises globally.

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

According to Temuhale and Ighoroje (2021), asset structure describes the makeup of a company's assets, encompassing both tangible and intangible assets. When making investment selections, investors frequently evaluate a company's asset structure. A robust asset structure can boost stock performance by giving investors assurance about the company's long-term prospects and resilience to economic downturns (Setiadharma & Machali, 2017). Stock performance will continue to be influenced by the asset structure as economies recover from the pandemic. According to Xue, Li, Zhang, and Hu (2021), companies that have preserved a robust asset structure during the crisis are probably going to come out stronger and take advantage of development and expansion prospects.

Firm Age on Stock Performance During and Post COVID-19 Pandemic

The amount of time that a person or thing has existed is known as its firm age. We defined firm age as the number of years since the business's founding, notwithstanding the belief held by some that the listing age should be used to calculate the firm's age (Shumway, 2001). The corporation argues that listing is more cost-effective because it marks a turning point in the company's history. Shumway's argument is disproved from the perspective of the company's legal personality (Waelchi & Pdferer, 2011). A company becomes a legal entity by incorporation (Gitzmann, 2008; Pickering, 2011). As a result, it is preferred to use the year of formation to calculate the firm's age (Nyikyaa, 2021). All things considered, the COVID-19 pandemic has had a major effect on international financial markets, including the stock performance of companies in a variety of industries. The impact of company age on stock performance both during and after the pandemic is one topic of interest.

Market Capitalization and Stock Performance During and Post COVID-19 Pandemic

Market capitalization, also known as market cap, is a metric used to assess the size and worth of a company on the stock exchange (Davis, 2023). A company's market capitalization can be influenced by several factors (Fernando, 2023). These include: financial performance, which suggests that a company's market capitalization is directly impacted by its revenue, earnings, and profitability. Market capitalization frequently rises in response to strong financial performance. Market sentiment, or investor confidence in a company, has a big impact on its market capitalization. In addition to industry trends, which display market patterns and sector-specific events that may affect the market capitalization of companies operating within certain industries, positive news, strategic alliances, or innovative products and services can increase market capitalization. Thus, market capitalization and stock performance have been significantly impacted by the COVID-19 epidemic. During the early stages of the pandemic, many businesses faced a decline, but others saw notable growth as a result of shifting consumer behavior and advances in technology.

Theoretical Framework

Innovation Theory

Innovation theory was first proposed by Joseph A. Schumpeter in 1939, and he is regarded as its "father." As a result, Schumpeter's opinions changed significantly. Through his proactive activities, he changed the market and production processes, fostering economic growth and tying the innovation process to the entrepreneur (Vanderburg, 2000). Schumpeter (1939) highlighted how big businesses might spur economic growth by innovating to strengthen their competitive position. Schumpeter's work's most significant outcome was the theoretical distinction between innovation and invention. In their business endeavors, entrepreneurs use other people's inventions to plan manufacturing and marketing.

Changing the "rules of the game" in the market is the entrepreneur's job. All innovation-related risks are taken on by entrepreneurs, who then reap the rewards of their labor. As a result, entrepreneurs show up as players who alter the system and establish a new framework. According to the innovation theory, a company's capacity to innovate and launch new goods or services determines how well it does. This paradigm suggests that companies with robust innovation capabilities were better equipped to handle the difficulties the epidemic presented.

Strong innovation capabilities of Nigerian businesses allowed them to create and introduce new goods and services during the pandemic that catered to the shifting demands of customers. For example, businesses that were able to preserve their profitability by swiftly developing and introducing new items, such as face masks or hand sanitizers, were able to take advantage of the increasing demand for these goods.

Empirical Review

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 uncertainties. 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.

Egbunike and Okerekeoti (2018) looked into the connection between business characteristics, macroeconomic conditions, and the financial performance of Nigerian listed non-financial firms. Along with company variables including liquidity, leverage, and firm size, the effects of the GDP growth rate, currency rate, interest rate, and inflation rate were also investigated. The financial performance, which is the dependent variable, is measured using the return on assets (ROA) metric. Currency rates and interest rates have little to no effect on ROA, according to the study, but inflation and GDP growth rates have a significant impact. Furthermore, the business attributes demonstrated the significance of company size, leverage, and liquidity.

Basuony et al. (2021) examined the dynamics of return, volatility, and bad state likelihood about the COVID-19 pandemic's impact on international financial markets. This study examines how the COVID-19 pandemic has affected stock returns, conditional volatility, conditional skewness, and the likelihood of a bad state. An asymmetric exponential generalized autoregressive conditional

heteroscedasticity model is used in this work to account for the asymmetric impact of both positive and negative shocks (news) regarding conditional volatility. between January 1, 2013, and December 31, 2020, using a sample of global stock market indices from Brazil, China, Italy, India, Germany, Russia, Spain, the United Kingdom, and the United States. In all markets, the study reveals previously unheard-of rises in conditional volatilities and adverse state probability. This effect is not the same in all markets, though. Additionally, they discovered that the effect of deaths is more detrimental than the effect of recovered patients.

Rababah et al. (2020) examined how the COVID-19 epidemic affected the financial results of Chinese Listed Firms. The analysis forecasted financial performance using the published financial reports of Chinese Listed Firms from 2013 to 2019. Information was taken from one of China's top databases, CSMAR. Our research's conclusions demonstrated the COVID-19 pandemic's detrimental effects on Chinese listed companies' financial performance. Overall sales, profitability, and investment in businesses across industries have all declined as a result. However, the travel and tourism, transportation, and other businesses that rely on these sectors for a significant amount of their first-quarter 2020 revenue are the ones who have been impacted the worst. The reduction in business operations, sales, and production levels in the aforementioned industries is shown by the negative rate of return. Investors and other stakeholders may see these outcomes as warning signs, which could result in additional financial limitations down the road.

Bose et al. (2021) investigated the relationship between COVID-19 impact, sustainability performance, and business value: evidence from throughout the world. According to their research, companies that operate in nations where COVID-19 is more devastating have seen a decline in firm value. Additionally, the negative correlation between COVID-19 impact and firm value was less noticeable for companies that performed better in terms of sustainability than for those that performed poorly. These results are taken as indicating that COVID-19 has caused a drop in the market value of companies globally, but that the rate of decline is less noticeable for companies that manage their stakeholders equitably through improved sustainability performance. Additionally, we discover that the detrimental effects of COVID-19 on firm value are less noticeable for companies based in stakeholder-oriented nations and operating in cultures that place a higher emphasis on environmental protection. Using month-to-month analysis from January 2020 to July 2020, two-stage analysis using instrumental variables, and other robustness checks, our results are solid, even when nations that are severely impacted by COVID-19 are not included.

Aifuwa et al. (2020) investigated the relationship between the performance of Nigerian enterprises and the coronavirus pandemic outbreak. To test the study's hypotheses, the researchers used linear regression. According to the study's findings, Nigerian firms' performance is adversely affected by the COVID-19 epidemic. According to the survey, the COVID-19 pandemic in Nigeria has forced company owners and executives to quickly mobilize and make snap decisions. Reducing industrial output or even temporarily stopping operations are examples of decisions that may have unanticipated long-term effects. Therefore, the shutdown policy or order issued by the President of the Federal Republic of Nigeria will affect the financial performance of private businesses.

Methodology

The study made use of 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 pairwise comparison method involves comparing the performance of each firm with all other firms in the sample. According to Nikolić, (2012), pairwise comparison is a process of comparing firms in pairs to judge which of each firm is preferred, or has a greater amount of some quantitative property, or whether or not the firms outperform the other. To achieve this, the study intends to adopt a 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).

The population of this study consists of industrial goods firms listed on the Nigerian Exchange Group (NGX). There are 13 quoted firms on the Nigerian Exchange Group as at 31st December 2024 (NGX, 2024). To conduct this research, a sample of 11 industrial goods firms from the 13 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 a post-COVID year.

Model Specification

The study will employ a panel data regression model to analyze the link between firm structural traits and stock performance during and post covid-19. The model can be specified as follows:

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

$$SP2 = \beta0 + \beta1ROA2 + \beta2FSize2 + \beta3FLev2 + \beta4Bur2 + \beta5Ass2 + \beta6Fage2 + \beta7Mac2 + \varepsilon \quad \text{Post COVID-19} \quad \text{Model 2}$$

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

β0 to β7 = Constant term and regression coefficients

ε = error term

Result

The study result is presented below as derived from the data collected.

Table 1 Summary of Descriptive Statistics

	Covid-19 Pandemic: Industrial Goods Sector					Post Covid-19 Pandemic: Industrial Goods Sector					
Variables	Mean	Max.	Min	Std. Dev.	Obs.	Variables	Mean	Max.	Min	Std. Dev.	.
SP1	74.67818	485.4000	2.680000	134.1877	88	SP2	74.57364	485.4000	2.680000	134.2264	
ROA1	0.111753	1.238234	0.000935	0.220041	88	ROA2	0.133820	1.102370	2.44E-05	0.174157	
FLEV1	1.292366	4.386948	0.030037	1.031815	88	LFSIZE2	17.19987	27.66815	12.22308	3.833626	
LFSIZE1	7.410571	11.88440	5.011372	1.766023	88	FLEV2	19.79478	1621.260	0.001180	172.6836	
ASS1	4.69E+10	5.86E+11	29385.00	1.50E+11	88	ASS2	4.57E+10	7.18E+11	199854.0	1.70E+11	
BUR1	0.263789	1.041941	0.003540	0.227977	88	BUR2	0.264240	0.999726	0.033438	0.244505	
FAGE1	41.50000	81.00000	7.000000	19.82626	88	FAGE2	43.50000	83.00000	9.000000	19.82626	
MAC1	1.32E+11	5.96E+11	2.32E+08	2.07E+11	88	MAC2	1.32E+11	5.96E+11	2.32E+08	2.07E+11	

Note: 1 denote Covid-19 Pandemic and 2 denotes Post Covid-19 Pandemic.
Source: Authors' Computation (2024)

The descriptive analysis in Table 1 compares key financial and operational variables for the Industrial Goods sector during the COVID-19 pandemic. These variables include SP, ROA, FLEV, LFSIZE, ASS, BUR, FAGE, and MAC.

The industrial goods sector's SP1 mean was 74.68 and stayed relatively stable after the COVID-19 pandemic, with the SP2 mean remaining at 74.57. Although the high standard deviation (134.19 during the pandemic and 134.23 after the pandemic) indicates ongoing market volatility, the maximum values (485.40) indicate that some firms experienced significant increases in their stock prices, while the minimum values (2.68) indicate significant losses for others. The consistency of the mean stock performance after COVID-19 suggests that although the pandemic caused volatility, the sector has stabilized to some extent, with the recovery process

still uneven across firms. This finding suggests that investors should be mindful that, despite the apparent stability of the sector's overall stock performance, individual companies may nonetheless experience high levels of volatility. Diversification and risk management will be essential for reducing losses and maximizing possible profits from stronger companies.

As the industry recovered from the pandemic, the Mean ROA increased somewhat to 0.134 from 0.112 during COVID-19, showing improved profitability. The standard deviation dropped from 0.220 to 0.174, indicating that businesses were more reliable in producing profits on their investments after the epidemic. The maximum ROA did, however, marginally decrease from 1.238 to 1.102, indicating a reduced but still noteworthy peak profitability. The increase in profitability in the industrial sector indicates that businesses have adjusted to the post-pandemic climate. To maintain profitability, businesses should keep concentrating on increasing operational effectiveness and making the most use of their assets. Businesses with a steady and positive return on assets (ROA) are more reliable investment options for investors.

There was a discernible shift in FLEV; the mean FLEV was 1.29 during the pandemic, but after COVID-19, it sharply increased to 19.79, reaching a maximum value of 1,621.26, which is exceptionally high. This suggests that in order to recover from the economic disruptions caused by the pandemic, a large number of businesses in the industry have mostly relied on loan financing. Additionally, the standard deviation rose dramatically (from 1.03 to 172.68), indicating a greater variation in the way businesses used their resources. Therefore, the sharp increase in FLEV raises questions about the long-term viability of debt-heavy plans, particularly in the event that interest rates rise or the economy deteriorates. To stay out of financial trouble, businesses need to handle their debt carefully. In order to comprehend the possible hazards linked to excessive leverage, investors ought to evaluate a company's debt-to-equity ratio.

Once more, FSIZE increased significantly after COVID-19, with the Mean FSIZE rising from 7.41 to 17.20. This implies that businesses have merged or increased their activities in order to obtain economies of scale. While the minimum size stayed constant, the maximum business size rose from 11.88 to 27.67, suggesting that the largest firms expanded considerably. The standard deviation increased, reflecting higher variety in business size across the sector. As a result, the expansion of FSIZE points to industry consolidation, with bigger companies taking the lead. Smaller businesses could find it difficult to compete, which might result in more mergers and acquisitions. In the face of industry consolidation, small and medium-sized businesses (SMEs) should concentrate on operational efficiencies or specialty markets to stay competitive.

Despite the overall asset base remaining substantial, the Mean ASS dropped little from 46.9 billion to 45.7 billion. Greater difference in the asset base of enterprises after the pandemic was reflected in the standard deviation, which climbed from 150 billion to 170 billion, while the maximum amount of assets increased from 586 billion to 718 billion. During the pandemic, industrial products companies might have reorganized or reevaluated their asset plans. The greater flexibility indicates that businesses are implementing various asset management tactics, which may include a combination of aggressive cost-cutting and expansion initiatives. Businesses should make sure that their asset portfolios are in line with their long-term strategic objectives by carefully assessing them.

Business risk remains a significant consideration for firms in the sector; firms that have increased their risk exposure may benefit from higher returns but also face greater uncertainty. Firms should implement robust risk management strategies to navigate potential market disruptions. Although the sector's overall risk profile did not change significantly, the Mean of BUR remained relatively stable at 0.264 during the pandemic and post-COVID-19, with a slight increase in the standard deviation (from 0.228 to 0.245).

The BUR Mean stayed largely constant at 0.264 throughout the pandemic and after COVID-19, while the standard deviation slightly increased (from 0.228 to 0.245). This implies that some companies have either increased their risk exposure or decreased it, even though the sector's overall risk profile has not changed significantly. Businesses in the industry continue to place a high value on business risk. Businesses with higher risk exposure may see better rewards, but they also run the risk of experiencing more uncertainty. Businesses should put strong risk management plans into place to handle any market upheavals.

With a Mean FAGE value that rose from 41.5 to 43.5 years, the industrial products industry is primarily made up of established businesses. While the min age only marginally changed, the max firm age was constant. The age distribution among enterprises appears to have remained constant, as indicated by the standard deviation, which remained unchanged. Established companies with experience in managing economic cycles dominate the sector, as seen by the consistent age of firms. Competing may be difficult for new market entrants unless they can provide innovation or notable operational advantages.

The industrial products sector's overall Market Cap did not very much, as evidence by the Mean MAC, which stayed constant at 132 billion. A wide variety of market values across enterprises was reflected in the standard deviation, which stayed high at 207 billion. Stability in market capitalization indicates that although the value of individual companies may have changed, the industry as a whole was largely stable. High market capitalization companies are likely to continue to dominate, while smaller companies might have trouble attracting investors or raising money.

Table 2 Correlation Analysis: Industrial Goods Sector

Covariance Analysis: Spearman rank-order

Date: 11/18/24 Time: 20:21
Sample: 2020Q1 2021Q4
Included observations: 88

Correlation

Observations	SP1	ROA1	FLEV1	LFSIZE1	ASS1	BUR1	FAGE1	MAC1
SP1	1.000000							
ROA1	-0.209900	1.000000						
FLEV1	-0.451647	-0.160201	1.000000					
LFSIZE1	-0.774827	-0.242866	-0.460543	1.000000				
ASS1	-0.817387	-0.332006	-0.419831	-0.963312	1.000000			
BUR1	-0.068485	-0.060354	-0.254552	-0.395234	-0.323722	1.000000		
FAGE1	-0.594591	-0.227323	-0.074786	-0.493813	-0.470655	-0.071435	1.000000	
MAC1	-0.771885	-0.094756	-0.470172	-0.883151	-0.875622	-0.219317	-0.375638	1.000000

Covariance Analysis: Spearman rank-order
Date: 11/18/24 Time: 20:27
Sample: 2022Q1 2023Q4
Included observations: 88

Correlation

Observations	SP2	ROA2	FSIZE2	FLEV2	BUR2	ASS2	FAGE2	MAC2
SP2	1.000000							
ROA2	-0.076045	1.000000						
FSIZE2	-0.798667	-0.124164	1.000000					
FLEV2	-0.255903	-0.066114	-0.205454	1.000000				

BUR2	-0.063240	-0.205775	-0.307547	-0.163002	1.000000			
ASS2	-0.800468	-0.123387	-0.968827	-0.184290	-0.278024	1.000000		
FAGE2	-0.594980	-0.242143	-0.483401	-0.004903	-0.295195	-0.445117	1.000000	
MAC2	-0.781326	-0.068613	-0.912680	-0.353809	-0.159292	-0.893993	-0.400115	1.000000

Note: 2 denote Post COVID-19 pandemic,
Source: Authors Analysis Computation (2024)

The correlation results show that during Covid-19, the relationship between SP and ROA was weakly negative at -0.209900, and this weakened further to -0.076045 post-pandemic, indicating that profitability had a slightly less negative impact on stock performance in both periods, with a more negligible effect after the pandemic. In contrast, the correlation between SP and LFSIZE was strongly positive at 0.774827 during COVID-19 and strengthened slightly to 0.798667 after COVID-19, highlighting that larger firms consistently outperformed during and after the pandemic. FLEV had a strongly negative correlation with stock performance during COVID-19 at -0.451647, which weakened to -0.255903 post-pandemic, suggesting that higher leverage had a more significant negative impact initially but became less of an issue later on. The correlation between SP and BUR was weakly negative at -0.068485 during COVID-19 and remained similarly weak at -0.063240 post-pandemic, indicating that business risk had a small but steady negative effect on stock performance in both periods. The relationship between SP and ASS was strongly positive at 0.817387 during COVID-19, and this strength remained strong at 0.800468 post-pandemic, emphasizing the importance of effective asset management in stock performance. For FAGE1, the correlation with stock performance was strongly negative at -0.594591 during COVID-19 and remained almost the same post-pandemic at -0.594980, suggesting older firms faced consistent challenges in both periods. Finally, the correlation between SP and MAC was strongly positive at 0.771885 during COVID-19, and this relationship strengthened to 0.781326 post-pandemic, indicating that larger firms continued to perform well and attract investor confidence. In conclusion, larger firms and those with effective asset management consistently performed better during and after COVID-19, while higher leverage, older firms, and business risk posed challenges to stock performance.

Table 4.6.3 Regression Analysis on Industrial Sector

Covid-19 Industrial Sector					**Post Covid-19 Industrial Sector**			
Dependent Variable: SP1					Dependent Variable: SP2			
Method: Panel Generalized Method of Moments					Method: Panel Generalized Method of Moments			
Date: 11/22/24 Time: 18:01					Date: 11/22/24 Time: 18:05			
Sample: 2020Q1 2021Q4					Sample: 2022Q1 2023Q4			
Periods included: 8					Periods included: 8			
Cross-sections included: 13					Cross-sections included: 13			
Total panel (balanced) observations: 104					Total panel (unbalanced) observations: 103			
2SLS instrument weighting matrix					2SLS instrument weighting matrix			
Instrument specification: C ROA1 LFSIZE1 FLEV1 BUR1 ASS1 FAGE1 MAC1					Instrument specification: C ROA2 FSIZE2 FLEV2 BUR2 ASS			
Constant added to instrument list					Constant added to instrument list			
Variable	Coefficient	Std. Error	t-Statistic	Prob.	Variable	Coefficient	Std. Error	t-Statisti
C	-1093.911	179.2940	-6.10121	0.0000	C	-1210.521	228.7745	-5.29133
ROA1	468.8707	187.8514	2.49597	0.0143	ROA2	-110.5018	153.2914	-0.72086
FSIZE1	-66.04331	42.21990	-1.56427	0.1210	FSIZE2	-223.7891	136.4374	-1.64023
FLEV1	80.50652	6.751244	11.92469	0.0000	FLEV2	64.38639	6.790672	9.48159
BUR1	14.58587	11.99576	1.215919	0.2270	BUR2	44.37146	16.30529	2.72129
ASS1	29.65093	18.91149	1.567879	0.1202	ASS2	62.39357	58.17377	1.07254
FAGE1	0.303355	0.657371	0.461467	0.6455	FAGE2	0.526829	0.958057	0.54989

MAC1	95.42761	16.04375	5.947961	0.0000	MAC2	169.2215	25.99167	6.51061
R-squared	0.772503	Mean dependent var		121.5210	R-squared	0.601416	Mean dependent var	12
Adj R-squared	0.755915	S.D. dependent var		238.6185	Adj R-squared	0.572047	S.D. dependent var	23
S.E. of regression	117.8894	Sum squared resid		1334199.	S.E. of regression	156.7320	Sum squared resid	23
Durbin-W stat	1.489191	J-statistic		1.59E-19	Durbin-W stat	1.382117	J-statistic	1.

Source: Authors' computation using Econometric Views Version 9 (2024)

In Table 3, the industrial goods sector's stock performance drivers before and after COVID-19 are compared using regression analysis. Defined changes in corporate dynamics and investor priorities are shown by the outcome. Underscoring the significance of profitability in managing economic uncertainty, ROA significantly improved stock performance during COVID-19 (coefficient = 468.8707, p = 0.0143). However, after COVID-19, ROA's impact dropped to a statistically insignificant level (coefficient = -110.5018, p = 0.4728), suggesting that investors were concentrating on more general recovery criteria.

Both during and after COVID-19, FSIZE showed a weakly negative correlation with stock performance, with the effect being statistically insignificant (coefficient = -66.04331, p = 0.1210 and -223.7891, p = 0.1043). This implies that industrial enterprises' ability to adjust to pandemic-induced obstacles and recover from them was neither greatly aided nor protected by company scale.
Throughout both times, FLEV continuously demonstrated a significant positive impact. It significantly affected operations during COVID-19 (coefficient = 80.50652, p = 0.0000), demonstrating the perceived value of leverage in bolstering activities during stress. This beneficial effect continued after COVID-19 (coefficient = 64.38639, p = 0.0000), indicating that leverage was still essential for funding recovery and expansion.
BUR's role changed significantly. BUR had a negligible impact during COVID-19 (coefficient = 14.58587, p = 0.2270), suggesting that market mood was dominated by risk aversion. However, BUR became significant after COVID-19 (coefficient = 44.37146, p = 0.0077), indicating that as markets stabilized, there were greater rewards for prudent risk-taking.
ASS's impact was moderate and statistically negligible over both periods, but it was somewhat more after COVID-19 (coefficient = 62.39357, p = 0.2862) than it was during the pandemic (coefficient = 29.65093, p = 0.1202). This implies that asset composition was not a major factor influencing stock performance, even though it did influence somewhat.
The coefficients for FAGE were 0.303355 (p = 0.6455) during COVID-19 and 0.526829 (p = 0.5837) after COVID-19, indicating a persistent lack of significant impact. This suggests that throughout either era, firm longevity did not significantly affect stock performance.
MAC became a critical factor in both times, and its significance increased after COVID-19 (coefficient = 169.2215, p = 0.0000) as opposed to during the pandemic (coefficient = 95.42761, p = 0.0000). This indicates that, during the recovery period, investors are depending more on market capitalization as an indicator of the stability and growth potential of the company. Overall, the model's explanatory power was better during COVID-19 (R-squared = 0.772503) than it was after the pandemic (R-squared = 0.601416). This implies that whereas stock performance after COVID-19 was impacted by a wider range of external causes, stock performance during the pandemic was more closely linked to quantifiable financial considerations. These observations highlight the necessity of flexible approaches that give operational resilience priority during emergencies and prudent risk-taking after recovery.

Conclusion:

In conclusion, the study revealed that firm size did not significantly affect stock performance during either period, indicating that adaptability, rather than size, was more important during the pandemic; however, financial leverage remained a key factor throughout, proving valuable for sustaining operations and funding recovery. The analysis of stock performance drivers in the industrial goods sector before and after COVID-19 reveals notable shifts in investor priorities and corporate dynamics. During the pandemic, profitability (ROA) played a significant role in stock performance, highlighting the importance of economic resilience, but its impact waned in the post-pandemic period as investors shifted their focus to broader recovery factors. The impact of business risk increased during the epidemic, indicating that when markets calmed, they started to reward prudent risk-taking. While business age remained mostly irrelevant to stock performance, asset structure had a slight impact. Last but not least, market capitalization grew in importance following COVID-19, suggesting that investors depended more and more on market valuation as an indicator of a company's prospects for expansion.

Recommendations:

Following the result of the study, the following recommendations were made:

1. Profitability was important during COVID-19; companies should think about diversifying their performance metrics after the pandemic.
2. Firm size was not a determining factor in performance during or after the pandemic; companies should prioritize adaptability and flexibility in their operations, focusing on strategic agility rather than relying solely on scale.
3. Financial leverage is advised. Although leverage greatly aided companies during the pandemic, it is still a necessary tool for funding growth and expansion after the pandemic, but it should be used carefully to avoid excessive risk.
4. Prudently managing business risk can yield major rewards in more stable market conditions.
5. Asset structure had a moderate effect; businesses should keep improving their asset management plans, but they should not prioritize it over other aspects like leverage and profitability.
6. Since firm age has no discernible effect, companies shouldn't place an undue emphasis on longevity as a critical success component. Rather, they ought to concentrate on long-term strategic planning, innovation, and responsiveness to market shifts.
7. Following COVID-19, market capitalization demonstrated that businesses should focus on long-term growth potential and stability while investing in tactics that increase investor trust and market valuation.

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