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Corporate earnings, dividend payments, and stock price behavior of manufacturing firms listed in Nigeria

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Abstract

The purpose of the study is to investigate the effects of corporate earnings and dividend payments on the stock price behaviour of manufacturing firms in Nigeria between 2013 and 2022. The study adopted an ex-post facto research design, and deployed Generalised Method of Moments (sys-GMM) and Granger causality tests for the data analysis. The two-step system GMM is used to control for omitted variables such as bias, unobserved panel heterogeneity or heteroscedasticity, autocorrelation within panels or groups, endogeneity issues, and measurement errors in the data. Findings show that share price (SP) and its predictors yield valuable insights into the factors influencing stock valuation. Dividend per share (DPS) emerges as a significant positive predictor, suggesting a notable impact on share price. Firm size (FSZ) proves to be a statistically significant predictor, indicating that the size of a firm plays a role in influencing stock prices, with larger firms associated with a decrease in share price. Conversely, Earnings per Share (EPS) and Dividend Yield (DY3) do not exhibit statistical significance, suggesting limited predictive power in the model. By way of conclusion, the study provides an understanding of the factors influencing share price behavior within the Nigerian manufacturing sector and the positive impact of past performance, particularly lagged share prices, confirming the persistence of stock market trends. The practical implications of this study are that it underscores the understanding of financial dynamics in emerging economies, particularly in the context of manufacturing firms in Nigeria.

Keywords: Corporate earnings, Dividend payment, Generalized method of moments, Manufacturing sector, Share price.

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1. Introduction

The stock price is believed to reflect the company's value. Nigerian manufacturing companies' stock price is subject to fluctuations based on several factors, such as overall economic fluctuations, industry-specific shifts, political developments, and environmental shifts. Furthermore, the law of demand and supply often influences stock prices. The implication of this is that, if manufacturing firms in Nigeria produce goods that are highly desired by Nigerians, the stock price of manufacturing firms in Nigeria would go up based on the force of market demand. However, changes in management or production could impact the stock prices of manufacturing firms. This may be in terms of changes in the management team, or style that have the potential to boost efficiency.

Stock prices, according to the efficient market hypothesis, reflect information [1]. Or, to put it another way, to reflect all available information entails including historical prices in weak form, news and pricing information that is available to the public in semi-strong form, and all other information, including insider knowledge, in strong form. This implies that financial transactions at market pricing utilizing the available information will have zero Net Present Value (NPV) activity if prices reflect all available information.

The manufacturing sector in Nigeria has not been operating at full capacity, and as a result, Nigeria has been classified as a consuming economy, rather than a producing or manufacturing economy. To drive the manufacturing firms to full capacity in Nigeria, there is a need to study the manufacturing firms, and the reasons behind the slow growth via the reaction of their stock price behaviour in the capital market. The stock price moves along a path [2]. It could be further said that the stock of any firm can follow a binomial mode (move up or move down) or a trinomial mode (move up, move down, or remain constant). Therefore, we regard the path of the stock price's movement as the stock price's behavior [2].

The Nigerian environment is filled with different regulations and policies that have not been favourable to the manufacturing sector. This, however, had contributed to placing Nigeria in a state of consumption than a state of production. Despite presenting to international businesses that Nigeria has the largest market on the African continent, our manufacturing sector still suffered from worrying economic slowdown, which was often provoked by the rising cost of doing business, epileptic power supply, and weak infrastructural backing, among others.

On the other hand, the stock market stands as a vital component of the country's financial landscape, connecting investors and companies seeking capital. Central to the efficient functioning of this market is the dynamic interplay between corporate earnings and stock prices. Corporate earnings represent a fundamental indicator of a company's financial performance, serving as a significant factor influencing investor decisions in the Nigerian stock market [3]. When companies release their earnings reports, investors, financial analysts, and policymakers keenly anticipate their impact on stock prices.

The main problem here is that the share price of manufacturing firms in Nigeria seems to be very low, when compared with other firms in other sectors. The reason might be that manufacturing firms are not adequately patronised, or their shares are not effectively traded in the stock market. Since the manufacturing firm's shares are not effectively traded, it reflects on the value of the firm and thus makes investors shy away from investing. Also, it shows that the manufacturing firms lack the financial capacity or capital needed to boost their productivity. To assist the manufacturing firm in attaining full capacity, there is a need to use earnings and dividends as a bait to attract investors into the manufacturing sector in order to increase capital and drive manufacturing to full capacity.

While several studies have examined the impact of either corporate earnings or dividend payments on stock price behaviour, very few have investigated the combined effect of these variables in the Nigerian manufacturing sector. Therefore, it is crucial to understand how the interaction between corporate earnings and dividend payments affects share price in Nigeria. Some studies suggest that firm size can moderate the relationship between these variables, but there is no consensus on the nature and magnitude of this effect in the Nigerian manufacturing sector. Therefore, it is important to investigate how firm size moderates the relationship between corporate earnings, dividend payments, and stock price behaviour in Nigeria.

2. Literature Review

2.1. Conceptual Review

Corporate earnings, dividend payments, and share price behaviour are key indicators of a manufacturing firm's financial performance. In general, corporate earnings reflect a company's profitability, while dividend payments represent a portion of the earnings distributed to shareholders. On the other hand, a wide range of factors, such as market tends, industry-specific developments, and company's financial performance, can influence share price behavior. Studies have examined the relationship between corporate earnings, dividend payments, and share price behaviour in the manufacturing sector. For example, a study by Zhang, et al. [4] found that corporate earnings and dividend payments have a positive impact on the share price of manufacturing firms in China. Similarly, Oyewunmi [5] found out that favorable earnings reports generally lead to increases in stock prices, reflecting investor optimism toward a company's strong financial performance, while disappointing earnings reports can result in declines in stock prices as investors reevaluate their expectations.

2.2. Theoretical Review

2.2.1. The Dividend Agency Theory

The foundation of corporate finance rests on the assumption that management's primary objective is to maximize the market value of the company, translating into wealth maximization for ordinary shareholders [6]. However, the alignment of these interests is not always seamless, leading to agency conflicts, particularly in public companies [7]. The agency theory posits that management may prioritize personal interests over shareholder interests when making decisions related to dividend payments and earnings. In Nigerian manufacturing, this may manifest as a preference for dividend payouts at the expense of reinvesting earnings, potentially conflicting with shareholders' best interests.

The dividend agency theory revolves around the relationship between shareholders (principals) and managers (agents), assuming the existence of potential conflicts of interest and information asymmetry. Shareholders seek wealth maximization, while managers may have divergent objectives or incentives, giving rise to the principal-agent problem. The theory focuses on how dividend decisions serve as a mechanism to address these conflicts and align the interests of managers and shareholders. Dividend payments are considered a commitment by managers to distribute cash, reassuring shareholders about the company's financial health and managerial intentions.

Despite its prominence, the dividend agency theory faces criticism for its simplified assumptions and limited consideration of diverse managerial motivations. Critics argue that managers may also prioritize the long-term success of the company, complicating the theory's focus on personal gain. Moreover, alternative mechanisms like corporate governance structures, compensation packages, and performance-based incentives are gaining recognition, challenging the theory's exclusive focus on dividends as a mechanism to control agency problems. The context-dependence of the theory is acknowledged, with its effectiveness varying based on industry, company size, growth stage, and specific circumstances. Additional points of contention include the complexity of dividends decisions, which are influenced by factors beyond agency concerns, and the rise of share repurchases as an alternative value-return mechanism.

In summary, while the dividend agency theory underscores the potential conflicts between shareholders and managers, its applicability and effectiveness remain subjects of ongoing debate. The theory's limitations in capturing the intricacies of managerial decisions, diverse motivations, and the alternative control mechanisms highlight the complexity of aligning managerial and shareholder interests in the corporate landscape.

2.3. Empirical Review

There have been several empirical analyses of stock price reactions to earnings and dividend announcements in Africa in general and Nigeria in particular. Moseri, et al. [8] examined the use of financial resources for sustainable industrialization in Nigeria. The share price was used as a proxy for the financial resources, while Human and Capital Development Index were used as proxies for sustainable industrialization. The study found out through the use of Cobb Douglas production model that the attainment of sustainable industrialization is the optimal use of financial resources available in the capital market.

William, et al. [9] examined dividend relevance of 15 firms actively traded in the Nigerian exchange, focusing on the value of the firms. They found out that during the COVID-19 period, investors became more rational in their decisions, allowing investors to see the relevance of dividends when firms share prices are actively traded in the capital market.

Ogbebor, et al. [10] assess the extent to which individual investors' expectations have affected stock price behaviour in the Nigerian exchange limited using a population of 250 and as sample size of 202. Stockbrokers, investment bankers, and equity investors made up the sample size of the study. The questions in the questionnaire address stock price behavior, investment, earnings, dividends, bills, inflation rate, board qualities, public, product, and history. A questionnaire was employed as a technique for gathering data. Regression and correlation are two components of the analysis approach. The study comes to the conclusion that companies listed on the Nigerian Exchange Limited should be aware of variables that investors focus on when making investments, including foreign investment flows, inflation, product variety, and board composition.

Ogbebor [11] investigated fundamental factors that affect stock price performance in Nigeria using data from 2008 to 2017 on ten capitalized listed firms. The study's theoretical framework was based on the efficient market, and its objective was to determine how Nigerian stock prices respond to a few key variables. The debt/asset ratio (D/A), pay-out ratio (PR), earnings yield (EY), dividend yield (DY), and adjusted stock returns (ASR) are the study's variables. We employed panel regression as the data analysis technique. The study discovered that the basic determinants have an impact on Nigerian stock price performance in both positive and negative ways.

Afego [12] investigated the degree of responsiveness of share prices to earnings information of firms listed on Nigerian stock exchange using an event study via regression analysis on data obtained from 16 selected firms. Similar to other studies, the predicted variable was individual security returns. The predictor variable was market return, and from the result of study found that abnormal returns and cumulative abnormal returns exerted a significant negative impact on share price 10 days before, during, and after the announcement date.

Prakash [13] tested the efficacy of semi-strong efficiency in Indian stock market, with a special focus on blue-chip companies, for the period 2008 to 2010. The authors computed average abnormal return (AAR) and cumulative average abnormal return (CAAR), complemented by cumulative abnormal return (CAR). The results of the analysis from the study are as follows: one, AAR was near zero up to the announcement date; two, CAAR was close to zero around the event study day; three, all CAR values were not significant in the cumulative periods. The authors then concluded that Indian stock market is efficient in its semi-strong form.

Oyuga [14] also lamented apparent lack of robust studies on the nexus between earnings announcements and share tthe price behavior on Nairobi Stock Exchange (NSE), despite huge research conducted in developed economies such as Europe, Asia, and the USA. The authors thereafter sought to examine how stock prices react to earnings announcements using a market model approach to analyse secondary data obtained from 19 listed firms quoted on the Nairobi Securities Exchange (NSE) from January 1, 2010 to December 31, 2013. In order to put the issue into proper perspective, a market model was formulated, and findings from estimated model showed that earnings announcements convey important information on the market value of the firm even before and after earnings announcements.

Kiremu, et al. [15] examined the effect of firms' earnings announcements on trading volumes and share price changes using event study methodology to analyse secondary sourced data from 5 listed firms on the Nairobi stock exchange for the

period 2006 to 2010. The market model analysis showed an insignificant negative relationship between earnings announcements and share price dynamics. With respect to trading volume and earnings announcements, the study found that average abnormal return (AAR), cumulative average abnormal return (CAAR), and trading average abnormal (TAR) have no significant relationship around the event date.

Eleke-Aboagye, et al. [16] acknowledged the importance of information dissemination to the promotion of financial markets and capital markets in particular via share price reactions to earnings announcements. The authors employed the market model hypothesis to examine linear relationship between stock returns and market returns to estimate possible abnormal returns from share price reactions. The market model is formulated as;

The stock returns calculated using market model are average return (AR), abnormal average return (AAR), and cumulative abnormal average return (CAAR). Empirical findings from the study did not show any correlation between earnings announcements and share price behavior, hence, earnings announcements are not quickly incorporated into the prices.

Inyiama and Ozouli [17] investigated the nexus between market price per share and earnings of firms listed on the Nigerian exchange (NGx) using Ordinary Least Squares (OLS), correlation, and pairwise granger causality analyses for the period 2004 to 2013. The explained variable of the study was share price. The independent variable was earnings per share (EPS). Empirical findings from the study revealed the following: one, there was significant positive association between earning per share and market price per share; there was a significant positive relationship between earning per share and market price per share; three, earning per share granger caused market price per share, implying uni-directional causality from EPS to market price per share (MPPS).

Owusu, et al. [18] acknowledged the plethora of studies in this area in both developed and emerging economies but lamented the lack of research on this topic on Ghanaian stock exchange, especially studies that adopt robust methods to analyse quarterly earnings information as it affects stock prices over 60 estimation periods and 21 day event window. They employed Ordinary Least Square (OLS) complemented by Standardized Excess Return (SER) for hypothesis testing. Findings from the study showed that Ghanaian stock exchange is efficient in the semi-strong form, as there is no noticeable reaction to earnings announcements.

Swaleh [19] examined the degree of response of share price of firms to announcements of earnings by firms quoted on the Nairobi stock exchange using event study methodology to analyse daily share data of 65 listed firms for the period 2014 to 2015. The regression is the actual stock return, while the independent variable is the market return. The authors then used chi square and t-tests to compute variances between actual returns of stocks from different sectors and market return of the exchange. It was observed that stocks quoted on Nairobi stock exchange are not efficient in their semi-strong form, as investors earned an abnormal return even before the announcement of earnings.

Olang and Akenga [20] examined the speed to which stock prices respond to earnings announcements and investments decisions by market participants using data from firms quoted on the Nairobi stock exchange. Adopting event study methodology, the authors examined whether share prices of firms respond to earnings announcement in the Nairobi stock exchange. The dependent variable was individual security returns, while the explanatory variable was market returns proxied by the all-share index. The regression analysis yielded the following empirical findings: One, earnings announcements affect market value of firms in the month of the announcement and even two months after announcement of earnings.

Faloye and Obamuyi [21] used event study methodology to examine the practicability of information signaling theory during recessionary period in Nigeria. The authors employed market model where the endogenous variable is the individual security expected return and exogenous variable is the expected market return. They observed a total of 121 days divided into two. The first observation is a 21-day event window of 10 days before announcements and 10 days after announcements including 1 day of announcement. The second observational period is 100 days of trading, compared to 110 before trading and 11 days for each firm. Empirical findings did not show evidence of information signaling hypothesis operating in the Nigerian economy.

Cyril, et al. [22] investigated how earnings accruals affect the market price of shares in Nigeria. Using the data of 12 firms for the period 2006 to 2017, they used share price as dependent variable, and the explanatory variables are: non-discretionary accrual adjustment, total accrual adjustment, and discretionary adjustment accrual. Findings from the study suggest that firm managers take advantage of discretionary adjustment accruals to manipulate earnings, and to a large extent, share prices.

Kumar, et al. [23] lamented divergent findings of several scholars with respect to share price reactions to earnings announcements. The authors tested the existence of an efficient market using the sensitive index (SENSEX) on theBombay Stock Exchange (BSE) from April 1, 2017 to March 31, 2020 using event study methodology.

The authors calculated the pre-event period of 20 days and post-event period of 20 days before computing the abnormal return (AR) and cumulative abnormal return of the two event periods at 5% significance level after taking cognizance of the degree of freedom. Empirical findings from the study suggest that BSE SENSEX is not highly strong efficient, as investors were able to earn an abnormal return in over 7 quarters out of 9 quarters studied.

Ekpe, et al. [24] used data from 2013 to 2017 to examine the nexus between earnings announcements and share price movements of 64 firms listed on the Nigerian exchange. The authors employed Generalized Least Square (GLS) technique, where the outcome variable is market price of shares. The covariate variables were earning surprise, which was decomposed into positive earnings surprise and negative earnings surprise for individual firms. Empirical findings from their study showed that share prices reacted positively to negative earnings surprises and negatively to positive earnings surprises, thus validating the return news hypothesis.

Ogbaisi, et al. [25] noted that Nigerian exchange (NGx) seems inefficient, as reflected by delays in adjusting earnings information. The author examined the effect of earnings surprises on share price behaviour of stocks on the Nigerian exchange using Ohlson valuation model on data obtained from 76 listed firms for the period 2010 to 2020. Findings from the study indicate the following: the impact of earnings surprise on share price is insignificant; investors are not concerned with published book value; and investors consider earnings surprise and magnitude in a unified framework.

Aguguom and Salawu [26] examined whether earning smoothing affects the market value of firms in the case of Nigeria using panel data approach to analyse secondary data obtained from 173 listed firms on Nigerian exchange (NGx) for the period 2009 to 2020. The dependent variable was share price, while the explanatory variables were earning smoothing, firm size, leverage, and board independence. Findings revealed a significant negative impact of earnings smoothing on share price behavior of firms.

3. Methodology

This study employs an ex-post facto research design, chosen for its suitability in collating data to ascertain the relationships among corporate earnings, dividend payment, and share price behavior of manufacturing firms in Nigeria, considering the timing and nature of the data relevant to the topic, and leveraging past events to assess their impact on the present and predict future occurrences through developed regression models aligned with the specific objectives of the study. This design is deemed most appropriate based on its successful utilization in prior related studies by Makina and Yabibal [27]; Dabla-Norris [28] and Jima and Makoni [29].

3.1. Population of the Study

This study focuses on investigating the relationships among earnings, dividends, and share price behavior in Nigerian manufacturing firms, specifically examining 32 quoted firms on the Nigerian Exchange Limited in 2023, comprising 37.5% industrial and 62.5% consumer goods firms, obtained through stratified sampling.

3.2. Sampling Size and Sampling Technique

The study employs stratified sampling to determine the sample size, categorizing manufacturing firms on the exchange into strata based on their sector (industrial and consumer goods), facilitating reliable data collection, with additional purposive sampling using inclusion and exclusion criteria to obtain cross-sectional and time series data for the study.This segment addresses the functional relationship between the dependent and independent variables of the study.

3.3. Model Specification

In determining the effect of corporate earnings on share pricebehaviour, the functional relationship of the model is specified in Equation 1.

$$Y_{it} = f(x_{1it,}x_{2it,}x_{3it}z_{1it}) \quad 1$$

This is now written symbolically as;

$$SHP_{it} = f(EPS_{it,}DPS_{it,}DIVY_{it,}SIZE_{it}) \quad 2$$

Where SHP is Share price, EPS is Earnings per share, DPS is Dividend per share, DIVY is Dividend Yield, FSZ is the Firm Size. The estimable form of Equation 2 is specified in Equation 3 as;

$$SHP_{it} = \lambda_0 + \lambda_1 EPS_{it} + \lambda_1 DPS_{it} + \lambda_1 DIVY_{it} + \lambda_1 SIZE_{it} + \mu_{it} \quad 3$$

Where the variables SHP and DIVY are as explained earlier in Equation 3. β_0 is the constant term and μ_{it} is the disturbance term. The parameters $\beta i(i= 1)$ is the coefficient of the variable.

Table 1 presents the measurement of variables.

Table 1.
Measurement of variables.

S/No.	Variables	Description	Measurement	Sources
1	Share price behaviour (N)	This represent the rise and fall of price of shares following announcement of earnings and dividend	This is measured as the market price of the shares of sample firms as at December 31 of the year	Machameratios, sigmal securities, Nigerian exchange limited.
2	Earnings per share (N)	This is the profit available to shareholders of a company after accounting for operational expenses, interest and taxes	It is measured as the ratio of profit after tax to number of ordinary shares EPS = PAT / No of shares	Machameratios, Sigmal securities, Nigerian exchange limited.
3	Dividend per share	Dividend per share displays the gross dividend amount declared on each issued common share that ranks for dividend payments during the year.	DPS=Gross Div/No OS	Machameratios, Sigmal securities, Nigerian exchange limited.

4	Dividend yield (%)	Dividend yields gauges the true returns on shareholders' investments and the cost of equity.	DIVY= $\frac{DividendperShare}{SharePrice} X\ 100$	Machameratios, Sigmal securities, Nigerian exchange limited.
5	Firm size	This is the total asset of the firm	It is measured in this study as the natural logarithm of total asset	Machameratios, Sigmal securities, Nigerian exchange limited.

3.4. Model Estimation

The study deployed the 2-step system GMM, collected data from the manufacturing firms, adopted an ex-post factor research design, and used a two-step Generalized method of moments and granger causality test. The present study employs dynamic panel-data estimation with a two-step Generalized Method of Moments (GMM) approach to investigate the determinants of share prices in a sample of 139 observations across 14 distinct groups over multiple years.

The 2-step system GMM method introduced by Arellano and Bover [30] efficiently handles serial correlation in the error term by incorporating lagged instruments in the first step, rectifying autocorrelation, and enhancing the efficiency of parameter estimates. The Generalized Method of Moments (GMM) model stands out as an apt choice due to its theoretical underpinnings in addressing the complexities of heteroscedasticity and autocorrelation [31].

Thus, the use of GMM is according to Roodman [31] is designed for situations where we have dynamic panel models, the cross-sectional group being greater than the time series (small T, and large N panels), arbitrary distributed fixed effects. It is also used to control for omitted variable bias, unobserved panel heterogeneity or heteroscedasticity issues, autocorrelation within panels or groups, and measurement errors in the data. Furthermore, its capacity to address measurement error and endogeneity simultaneously, coupled with its heteroscedasticity, robustness, and flexible use of instruments, underscores the 2-step GMM model as a robust analytical tool in econometric analysis.

It is used to control for endogeneity of the lagged dependent variable. Endogeneity is where there is correlation between the explanatory variable and the error term in a model. The use of GMM, according to Roodman [31] is designed for situations where we have: dynamic panel models, the cross-sectional group being greater than the time series (small T, and large N panels), arbitrary distributed fixed effects. It is also used to control for omitted variable bias, unobserved panel heterogeneity or heteroscedasticity issues, autocorrelation within panels or groups, and measurement errors in the data. In this study the adoption of GMM follows that cross sectional units or groups (G) > T (time periods or number of years), hence 14 cross-sectional companies are greater than the ten-year period.

Table 2.
Descriptive statistics.

Descriptive statistics	SP	EPS	DPS	DY	FSZ
Mean	133.003	7.629	4.011	4.282	140.657
Median	27.100	2.380	1.250	3.100	91.800
Maximum	1650.000	64.300	38.500	17.100	591.800
Minimum	1.160	0.040	0.050	0.320	10.000
Std. dev.	312.981	12.980	7.709	3.299	150.445
Skewness	3.381	2.738	2.992	1.919	1.793
Kurtosis	13.508	10.419	11.660	7.089	5.140
Jarque-Bera	904.230	492.279	641.727	182.182	101.026
Probability	0.000	0.000	0.000	0.000	0.000
Sum	18487.400	1060.420	557.550	595.260	19551.300
Sum sq. dev.	13518098.000	23249.690	8200.247	1501.472	3123466.000
Observations	140	140	140	140	140

Note: Share price (SP), Earnings per share (EPS), Dividend per share (DPS), Dividend yield (DY), and firm size (FSZ).

4. Result and Discussion

The descriptive statistics presented in Table 2 offer valuable insights into the characteristics of Share Price (SP), Earnings per Share (EPS), Dividend per Share (DPS), Dividend Yield (DY), and Firm Size (FSZ). Share Price (SP) has a mean of ₦133.00 which signifies the average value, but the large standard deviation of ₦312.98 indicates substantial variability in share prices. The positively skewed distribution (Skewness = 3.38) and leptokurtic shape (Kurtosis = 13.51) imply a non-normal distribution with a longer right tail and heavier tails than a normal distribution. The Jarque-Bera statistic of 904.23 provides statistical evidence supporting the departure from normality.

Earnings per Share (EPS) has an average of ₦7.63 with a standard deviation of ₦12.98 suggests moderate variability. The positively skewed distribution (Skewness = 2.74) and leptokurtic shape (Kurtosis = 10.42) again indicate non-normality, a finding reinforced by the significant Jarque-Bera statistic of 492.28. For Dividend per Share (DPS), the mean of ₦4.01 and moderate standard deviation of ₦7.71 indicate a moderate spread of values. The positively skewed distribution (Skewness = 2.99) and leptokurtic shape (Kurtosis = 11.66) point towards non-normality, confirmed by the significant Jarque-Bera statistic of 641.73. Examining Dividend Yield (DY), the average yield of 4.28% with a standard deviation of 3.30% suggests relatively

low variability. The positively skewed distribution (Skewness = 1.92) and leptokurtic shape (Kurtosis = 7.09) again indicate non-normality, supported by the Jarque-Bera statistic of 182.18.

Finally, considering Firm Size (FSZ), the mean of 140.66 with a large standard deviation of 150.45 indicates substantial variability. The positively skewed distribution (Skewness = 1.79) and leptokurtic shape (Kurtosis = 5.14) show that the data is not normal, which is supposed by the Jarque-Bera statistic of 101.03.

To sum up the descriptive statistics show not only the main trends and variations of the financial variables, but also how far they are from being normal. This is shown by the skewness, kurtosis, and Jarque-Bera statistics for each variable. These findings are crucial for understanding the distributional characteristics of the data and should be considered in subsequent analyses or modeling efforts.

Table 3.
Panel unit root test – The Im–Pesaran–Shin (IPS)and Breitung.

Variable	IPS	Order of co-integration	Breitung	Order of co-integration
	Level	First difference	Level	First difference
SP	1.395	-3.783***	-0.303	-3.863***
EPS	-1.082	-4.856***	-2.126**	-4.214***
DPS	-0.438	-4.255***	-1.917**	-4.414***
DY3	-2.999***	-5.141***	-4.988***	-5.062***
FSZ	-0.275	-4.853***	1.076	4.285***

Note: ** and *** indicates rejection of the null hypothesis of panel unit roots at 5% and 1% respectively.

Table 3 presents the panel unit root tests of the Im–Pesaran–Shin (IPS) and Breitung at level and first difference.
Share Price (SP):

At this level, the IPS test statistic is 1.395, indicating the presence of a unit root. However, the negative value of -3.783*** in first differences suggests the rejection of the null hypothesis, signaling that Share Price is stationary after differencing. The asterisks denote statistical significance, with three stars (***), implying rejection at the 1% significance level.

Earnings Per Share (EPS):

In EPS, both the IPS and Breitung tests at this level result in non-rejection of the null hypothesis, indicating a unit root. However, in first differences, the negative values of -4.856*** (IPS) and -4.214*** (Breitung) lead to rejection of the null hypothesis, suggesting that EPS becomes stationary after differencing.

Dividends Per Share (DPS):

For DPS, similar to EPS, the tests at this level do not reject the null hypothesis, suggesting a unit root. In the first differences, the negative values of -4.255*** (IPS) and -4.414*** (Breitung) indicate the stationarity of DPS after differencing.

Dividend Yield 3 (DY3):

DY3 exhibits a strong indication of non-stationarity at the level, as evidenced by the negative values of -2.999*** (IPS) and -5.141*** (Breitung). However, in first differences, the negative values -4.988*** (IPS) and -5.062*** (Breitung) support the rejection of the null hypothesis, implying that DY3 becomes stationary after differencing.

Table 4.
Dynamic panel-data estimation, two-step system GMM estimates.

Dependent variable: SP						
	Coef.	Std. err.	z	P>z	[95% conf.	Interval]
L1.	0.626	0.192	3.26	0.001	0.249	1.003
EPS	3.412	3.311	1.03	0.303	-3.077	9.902
DPS	11.566	3.682	3.14	0.002	4.350	18.783
DY3	-0.032	0.136	-0.24	0.812	-0.299	0.234
FSZ	-0.005	0.002	-2.33	0.02	-0.009	-0.001
_cons	-22.750	21.895	-1.04	0.299	-65.664	20.164
Wald		188702				
Arellano-bond test for AR(1)		-1.14				
Arellano-bond test for AR(2)		-1.13				
Sargan test		135.43				
Hansen		9.49				
GMM instrument for level						
Hansen test excluding group:		9.63				
Difference		-0.15				
iv(l.SP)						
Hansen test excluding group:		10.95				
Difference		-1.46				

4.1. Interpretation of GMM Estimates from Combined Model

The GMM regression results from model are reported in the Table 4. The model considers lagged share prices (L1.SP), EPS, DPS, DY3, and FSZ as determinants of current share prices. The coefficient estimate for L1.SP is statistically significant at the 0.1% level, indicating a robust positive impact of past share prices on current share prices. This result underscores the enduring influence of historical stock performance on contemporary valuations, offering valuable guidance for investors and financial analysts.

The provided output appears to be the results of a regression analysis, specifically using a linear regression model where the dependent variable is Share Price (SP), and the independent variables include Earnings per Share (EPS), Dividend per Share (DPS), Dividend Yield (DY3), and Firm Size (FSZ). Additionally, the "_cons" term represents the intercept or constant in the regression equation.

For the variable EPS (Earnings per Share), the coefficient is 3.412132, indicating that a one-unit increase in EPS is associated with an expected increase of approximately 3.41 units in Share Price. However, the p-value of 0.303 suggests that EPS is not statistically significant predictor of Share Price at the conventional significance level of 0.05. On the other hand, for DPS (Dividend per Share), the coefficient is 11.56612, implying that a one-unit increase in DPS is associated with an expected increase of about 11.57 units in Share Price. The low p-value of 0.002 suggests that DPS is statistically significant predictor of Share Price. Moving to DY3 (Dividend Yield), the coefficient is -0.03233, indicating that a one-unit increase in DY3 is associated with a decrease in Share Price by 0.03233 units. However, the high p-value of 0.812 suggests that DY3 is not statistically significant in predicting Share Price. For FSZ (Firm Size), the coefficient is -0.00496, implying that a one-unit increase in Firm Size is associated with a decrease in Share Price by 0.00496 units. The low p-value of 0.02 suggests that FSZ is statistically significant in predicting Share Price. Finally with a coefficient of -22.7501, the "_cons" term represents the intercept. The intercept provides the estimated Share Price when all predictor variables are zero. The p-value of 0.299 for the intercept suggests that it is not statistically different from zero.

4.2. Instrumentation and Endogeneity

The instrumental variables employed in the first differences equation include lagged first differences of share prices (D.SP). The instruments for the levels equation consist of lagged share prices (SP) and a constant term (_cons). We employ the GMM-type instrumentation strategy, with separate instruments for each period unless collapsed.

We conducted Arellano-Bond tests for AR(1) and AR(2) in first differences to address potential endogenity concerns. Both tests yield p-values above conventional significance levels (AR(1): $p = 0.254$, AR(2): $p = 0.257$), suggesting no strong evidence of autocorrelation in first differences.

4.3. Validity Checks

The Sargan test of overidentifying restrictions produces a chi-square value of 135.43 with a p-value of 0.117, implying a lack of rejection of the null hypothesis of instrument validity. Even though the Hansen test of overidentifying restrictions has a chi-square value of 9.49, it fails to reject the null hypothesis. This suggests that the instrument set is somewhat robust, though this is lessened by the fact that there are so many instruments. Difference-in-Hansen tests assess the exogeneity of instrument subsets. Both the GMM instruments for levels and iv (SP) fail to reject the null hypothesis of exogeneity, supporting the overall validity of the employed instruments.

4.4. Implications

Understanding the intricacies of stock valuation is a complex task that demands a careful analysis of various factors influencing the financial landscape. This study employed a regression model to investigate the factors influencing current share prices across a diverse range of companies. The results revealed significant insights into the economic implications of different variables, shedding light on the nuanced relationship between financial metrics and stock valuations.

The robust and highly significant coefficient for lagged share prices (L1.SP) stands out as a pivotal factor influencing current share prices. This result, backed by its statistical significance at the 0.1% level, emphasizes the enduring impact of historical stock performance on contemporary valuations. Investors, guided by this finding, may factor in a company's historical stock trends when making investment decisions. The sustained positive influence of past stock prices on current valuations implies a level of market inertia, where positive trends tend to persist.

While the positive coefficient for EPS suggests a potential positive relationship with share prices, the lack of statistical significance ($p = 0.303$) warrants a cautious interpretation. Economic implications point towards a need for investors to delve deeper into the relationship between earnings per share and stock prices. It calls for a closer examination of other factors that may influence this association, urging a nuanced approach to decision-making.

4.5. Dividends per Share (DPS)

The statistically significant and positive coefficient for DPS underscores the importance of dividends in shaping stock prices. Companies with consistent and generous dividend policies may attract investors seeking reliable income streams. The economic implication is clear: dividends play a vital role in influencing stock prices. This result aligns with traditional finance theories that emphasize the impact of dividends on shareholder value.

In the specified model, the non-significant coefficients for DY3 and TA suggest that these variables play a limited role in explaining current share prices. From an economic standpoint, this implies that, within the context of this regression, variations in dividend yield and total assets may not significantly impact stock prices. However, it's crucial to acknowledge

that these variables may hold relevance in other aspects of company performance, and other unaccounted factors may influence their impact on stock prices.

The negative and statistically insignificant intercept term suggests that the baseline value does not significantly contribute to explaining the variability in current share prices in the specified model. The economic implication is that the baseline value, as captured by the intercept term, may not play a substantial role in determining current stock prices for the companies in the study.

A myriad of factor influence the intricate nature of stock valuation, providing justification for these results. The enduring impact of historical stock performance aligns with the behavioral finance theory, suggesting that investors tend to rely on past trends when making decisions. The non-significant coefficients for certain variables highlight the need for a comprehensive understanding of the unique dynamics of each company and the complex interplay of various financial metrics.

4.6. Discussion of Findings

The study envisaged the effects on corporate earnings, dividend payments, and share price behaviour of manufacturing firms in Nigeria. On this basis, findings from the study show that Lagged share prices (L1.SP) demonstrated a statistically significant positive impact on current share prices, indicating a persistent influence of past performance on stock valuation. While Earnings per Share (EPS) do not appear to be a statistically significant predictor, both Dividend per Share (DPS) and Firm Size (FSZ) exhibit significance. An increase in DPS is associated with a substantial rise in Share Price, supported by a low p-value. Firm Size, indicated by FSZ, also proves statistically significant, with a negative coefficient suggesting that larger firms are associated with a decrease in Share Price. Conversely, Dividend Yield (DY3) and the intercept term (_cons) lack statistical significance, indicating limited predictive power. Findings from the study were in tandem with the work of Faloye and Obamuyi [21] whose study affirmed that the empirical findings did not show evidence of information signaling hypothesis operating in the Nigerian economy. More so, the work of Eleke-Aboagye, et al. [16] was in consonance with the empirical work as it failed to deduce any correlation between earnings announcements and share price behavior, hence, earnings announcements are not quickly incorporated into the prices. The work of Inyiama and Ozouli [17] shared a mixed result with the empirical review, as it deduced a positive effect of earning per share, however, significant on share price. The work of Ekpe, et al. [24] was not in tandem with the empirical work, as the study showed that share prices reacted positively to negative earnings surprises and negatively to positive earnings surprise thus validating the return news hypothesis. The work of Irandoost, et al. [32] underscored the inconclusiveness of dividend policy controversy. The empirical findings of the study replicate the findings of the study, as the study showed that dividend payments have no significant impact on stock price behavior on the Tehran Stock Exchange. The work of Kenyoru, et al. [33] depicts mixed results. Their findings denoted that while dividend yields have a positive effect on share price, this affirmed the empirical findings, however, the significant effect does not corroborate with the findings. The work of Profilet and Bacon [34] contradicts the study results as it showed that dividend yield and size of the firm exert a negative effect on stock's price, while, leverage, and firm's growth have an inverse relationship with stock price volatility. Similarly, the work of Chinnaiah [35] also supports these finding as it reveals that dividend payout ratio, current year profit, size, leverage, growth opportunities, market risk, price earnings ratio (P/E), and age do not significantly influence market value of firms. However, some studies do not augur well with empirical evidence. For example, Aguguom and Salawu [26] whose study investigated whether earnings smoothing affects the market value of firms, revealed a significant negative impact of earnings smoothing on share price behavior of firms.

5. Conclusion and Recommendations

In conclusion, the study provides an understanding of the factors influencing share price behavior within the Nigerian manufacturing sector. Findings show that Share Price (SP) and its predictors yield valuable insights into the factors influencing stock valuation. Dividend per Share (DPS) emerges as a significant positive predictor, suggesting a notable impact on Share Price. Firm Size (FSZ) also proves to be a statistically significant predictor, indicating that the size of a firm plays a role in influencing stock prices, with larger firms associated with a decrease in Share Price. Conversely, Earnings per Share (EPS) and Dividend Yield (DY3) do not exhibit statistical significance, suggesting limited predictive power in the model. These findings highlight the complex dynamics at play in determining Share Price, emphasizing the need for a comprehensive understanding of various factors that contribute to stock valuation in financial markets.

5.1. Recommendations

We made the following recommendation in the light of our findings:

1. Considering the positive but marginally significant impact of earnings per share (EPS) on share prices, manufacturing firms in Nigeria should prioritize enhancing the transparency of their earnings reporting, as this could invariably build investor's confidence and potentially strengthen the relationship between EPS and share prices.
2. Manufacturing firms should adopt and maintain robust dividend payout policies due to significant influence of dividends on share prices. Consistent and well-communicated dividend distributions can attract income-seeking investors, contributing to a positive relationship with share prices. Firms should carefully consider their financial capabilities to sustain such policies.
3. Recognizing the predictive role of dividend yield in anticipating future stock prices, manufacturing firms should actively manage and optimize their dividend yield. Strategic decisions related to dividend policies can influence investor perceptions of a company's financial health and, consequently, positively impact share prices. Regularly evaluating and adjusting dividend yield strategies may enhance market competitiveness.

5.2. Limitations of the Study

While this study covered many gaps in the literature on share price and dividends, incorporating simple regression into the two-system GMM limits the significance of many indicators, such as the dividend yield. Firm size, as well as other indicators. More so, the study limits the scope of the study to the manufacturing sector only, non-inclusion of some sectors limits the generalization of the study.

5.3. Suggestions for Further Study

To address the limitations, future studies should include more instruments in the GMM system in order to produce more robust findings. Furthermore, future research broadens the study to include a variety of industries and macroeconomic variables. Exploring the impact of global economic conditions on share price behavior in the Nigerian manufacturing sector could provide a more comprehensive understanding.

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