

Internal Drivers of Dividend Payout in Nigerian Quoted Manufacturing Companies

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ABSTRACT

This study evaluated the internal drivers of dividend payout in Nigerian quoted manufacturing firms over the period of 2011 to 2019. The study employed secondary data gotten from annual financial reports of selected manufacturing firms and the Nigerian Stock Exchange Fact book. Dividend pay-out ratio served as the dependent variable whereas present net earnings per share, cost of floating new shares, financial leverage and liquidity served as the independent variables. The study employed the stationarity test which revealed the stationarity of the data at first difference. More so, panel regression using fixed effects model was employed as the Hausman test confirms it is more appropriate than the random effects model. The findings of the study evince that present net earnings per share, debt/equity ratio (leverage), flotation costs and liquidity showed significant influence on the dividend payout of the selected manufacturing firms in Nigeria. From the results of this study, we conclude that present net earnings per share, debt/equity ratio (leverage), flotation costs and liquidity are significant internal drivers of dividend payouts of quoted manufacturing firms in Nigeria. Therefore, the study recommends among others that manufacturing firms should ensure healthy, consistent and growing earnings so as to guarantee a stable and healthy profit margin. Manageable debt to equity ratio should be maintained to ensure financial flexibility as high debt levels can limit a company's ability to pay dividends.

KEYWORDS:

Dividend policy, dividend payout ratio, post-tax earnings, signalling effect

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Introduction

Financial management involves procurement of funds and their effective deployment in commercial and other specified activities (Yusof & Ismail, 2016). Every business organization requires effective and efficient management of funds in order for such a business to succeed. One of the fundamental functions of financial management is that of maximization of shareholders' wealth (Akinyomi, 2013). In order to accomplish this function, three crucial decisions have to be made, these include investments decisions, financing decisions and dividend decisions. Investment decision involves intelligent evaluation of new investment opportunities in terms of viability and the allocation of financial resources towards the execution of the selected investments. The financing decision (capital structure) encompasses decisions on when, where and how a business should obtain needed financial resources (Prachi, 2020). Dividend decision is the third essential decision in financial management and centres on whether to distribute post-tax earnings, partly or completely to shareholders in form of dividend, or to reinvest the post-tax earnings for expansion purposes (Prachi, 2020).

The amount of dividend paid to the shareholders relative to the firms' retained earnings is what is known in literature as dividend payout ratio (Mbah & Anichebe, 2018). The dividend payout decision is a choice made by a company's management regarding the portion of its profits to distribute as dividends to its shareholders. It involves assessing various factors such as the company's financial health, future investment opportunities, and shareholder preferences. This decision can impact the company's stock price, investor perception, and overall financial strategy. Optimum dividend payout is said to be the one that minimizes the sum of agency costs and the sum of transaction costs associated with raising needed funds (external finance). The question relating to what proportion of the post-tax profit to be retained in the business, the proportion to be distributed as dividend to the shareholders, form of dividend distribution (cash, stock, scrip and so on) and how stable the dividend distribution should be bothers on dividend policy. According to Akinyomi (2013), dividend policy generally refers to a set of basic principles and guidelines adopted by any business organization in arriving at the proportion of post-tax earnings to be distributed to shareholders and the proportion to be ploughed back into the business for reinvestments. In a nutshell, dividend policy is the management practice through which decisions concerning dividend payments are taken (Abdullahi, Adebayo & Aliyu, 2020). No doubts, dividend policy is very crucial and can make or mar a company. If this assertion is valid, then the company's dividend payouts are of foremost significance both to shareholders and corporate executives. Hence, it is important that the company's stakeholders are cognizant of the factors that affect the dividend payouts.

In contemporary literature, there is no single synthetic theory that enables clear identification of the factors determining the decisions on dividend payment. However, dividend payout decision is influenced by several determinants which can be internal or external. The internal drivers of dividend policy are factors within a company that influence its decisions about distributing dividends to shareholders and within the control of the firm. A company's management team considers these internal factors when determining the appropriate amount of dividends to pay out while maintaining the company's financial health and ability to invest in future growth. External factors are those factors which are uncontrollable, which cannot be influenced by decisions. The external factors can impact a company's ability to pay dividends, the frequency and amount of dividends, and the overall dividend policy adopted by the company. In studies on corporate dividend policy, some of these drivers include the company's financial performance, profitability, liquidity position, capital requirements, dividend policy, growth/investment opportunities, company size, past dividend pattern, debt/leverage, shareholder/investor preferences, shareholders' expectations, cost of external financing, cost of raising funds

from alternate sources, overall economic conditions (domestic and global). Market conditions, industry norms, and regulatory constraints/changes in government policies further impact this decision. Evaluating these aspects helps companies strike a balance between distributing profits to shareholders and retaining funds for future growth and stability. In other words, a balanced approach considering these determinants helps companies determine an appropriate dividend payout strategy.

Finance literature is replete with standard list of variables that influence the dividend payouts of firms. Accordingly, Osiegbu (2005), Weston and Brigham (1986) enumerated indicators which include; liquidity (availability of cash), investment (re-investment opportunities), business growth potentials in the economy, income desire of shareholders, lending rate, cost of floating new shares, impairment of capital rule, legal constraints, approved listing, penalty for property accumulated reserves, the need to maintain ownership control, information content of dividend, inflation rate, present net earnings per share, past dividend payouts, accumulated reserves per share, debt/equity (leverage) ratio etc. The study by Haye (2014) indicated that firms with less CEO, institutional and hedge fund ownership pay higher dividends. More so, cumulative voting impacts on dividend policy to a large extent than staggered boards. This suggests that firms adjust their dividend policy in reaction to control changes attributable to ownership structure and governance provisions. Manos (2003) found that government ownership, insider ownership, risk, debt, and growth opportunities negatively impact on dividend payout ratio of Indian firms whereas dispersed ownership, foreign ownership and institutional ownership positively impact on dividend payout ratio. Lintner (1956) also found that dividend payout depends, in part, on the firm's current earnings and partly on the dividends in the previous year. The study fundamentally concluded that dividends are determined by a target payout level which is contingent on the company's long-term earnings.

Although various studies have been conducted in order to ascertain the drivers of dividend payouts, nevertheless, the results of these studies are contradictory and inconclusive. This study therefore attempted to investigate the drivers of dividend payout in quoted Nigerian manufacturing firms in more detail. It reviewed the relevant literature and present empirical evidence on the relationship between different factors and dividend payout policy. This study will help companies make more informed decisions about their dividend payout policies.

Literature Review

Conceptual Framework

Dividend and Dividend Policy

Dividends are payments made by a corporation to its shareholders as a portion of the company's profits. These payments are typically distributed on a regular basis, such as quarterly, and are often in the form of cash or additional shares of stock. Dividends are a way for shareholders to receive a return on their investment in the company. The amount of dividends a shareholder receives is usually determined by the number of shares they own and the dividend per share declared by the company. The ability and the willingness of a company to pay stable dividends over a good period of time and even increase them steadily gives a good picture about the fundamentals of the company (Berk & DeMarzo, 2011). The board of directors of the company decides the amount of dividend to be paid out to the shareholders. A record of consistent dividends over a long period of time is important to many companies and shareholders because such a record is widely interpreted as evidence of consistent profitability. Most dividend-paying companies strive not to reduce dividends when they are experiencing transitory problems, whereas some companies seek to consistently

increase the dividend so as to indicate to investors that their shares are of high investment quality (Michelle, *et al.*, 2012).

Dividend policy is an important aspect of a company's business decision/strategy. Dividend policy refers to the strategy a company uses to determine the amount and frequency of dividends it will distribute to its shareholders. It involves decisions about how much of the company's earnings should be distributed to shareholders as dividends versus being retained for reinvestment in the business.Companies can choose to pay dividends, reinvest profits into the business, or pursue a combination of both. Chen (2020) defined dividend policy as the policy a company uses to structure its dividend payout to shareholders. According to Baker and Weigand (2015), dividend policy can be defined as the payout policy that a business organization adopts in determining the size and pattern of distribution to its shareholders over a period of time. Dividend payout policy is influenced by a variety of factors, both internal and external. Internal factors include the company's financial health, growth prospects, and investment opportunities. External factors include the overall economic climate, tax laws, and shareholder preferences. A company's dividend policy can influence its attractiveness to investors, stock price stability, and its ability to finance growth. Different dividend policies, such as regular dividends, special dividends, or no dividends, can convey different signals to the market about a company's financial health and growth prospects. The choice of dividend policy should align with the company's financial goals, capital needs, and overall strategy.

Dividend payout decision is made by the board of directors of the company. They decide on the profit distribution in the form of dividends and the content of the dividend policy considering different factors like growth and future assignments and projects (Berk & DeMarzo 2011). The most important objective of dividend policy is the improvement of the financial health of the company. This objective also takes into consideration shareholder's wealth as the shareholder of the company plays a very important role in the company's growth. Companies aim to strike a balance between rewarding shareholders and retaining funds for future growth. The internal drivers of dividend payout used for this current study include dividend payout ratio, net present earning per share, cost of floating new shares and financial leverage.

Dividend Payout Ratio: The dividend payout ratio is a financial metric that shows the proportion of a company's earnings distributed to its shareholders in the form of dividends. It is calculated by dividing the total amount of dividends paid by the company by its net income. The formula is:

Dividend Payout Ratio = <u>Dividends Paid</u> x 100

Net Income

A high dividend payout ratio indicates that a significant portion of the company's earnings is being returned to shareholders, leaving less for reinvestment or other uses. Conversely, a low ratio suggests that the company retains more of its earnings for internal growth, debt reduction, or other strategic purposes. A sustainable payout ratio is one that allows a company to reinvest in its operations while also returning value to shareholders.

Present Net Earnings Per Share: Present Net Earnings Per Share is a key financial metric used by companies and investors to assess a firm's profitability on a per-share basis. It is an important determinant of dividend payout decisions because it reflects the company's profitability on a per-share basis, influencing the ability to distribute dividends to shareholders. When a company considers

distributing dividends to its shareholders, it often looks at its current earnings, represented by present net earnings per share. A higher present net earnings per share suggests that the company is generating more profit for each outstanding share. This can provide confidence to both management and investors that the company has the financial strength to sustain and possibly increase dividend payments. On the other hand, a lower present net earnings per share may indicate financial challenges or a lower capacity to distribute dividends. Companies typically aim to strike a balance between rewarding shareholders with dividends and retaining earnings for future growth or to handle unforeseen circumstances.

Cost of Floating New Shares: The cost of floating new shares can impact a company's dividend payout decision because issuing new shares can dilute existing shareholders' ownership. When a company decides to issue additional shares, it raises capital by selling these shares to investors. If the cost of issuing new shares is low, it might be a more attractive option for raising funds compared to using retained earnings or taking on debt. However, the dilution effect can lead to a reduction in earnings per share (EPS) for existing shareholders. Since dividends are often paid out of earnings, a lower EPS might constrain the ability to maintain or increase dividend payouts. Therefore, companies consider the cost of issuing new shares and weigh it against the potential dilution impact on existing shareholders when making dividend decisions. In essence, if the cost of floating new shares is high, a company might be less inclined to choose this method of raising capital, opting instead to retain earnings or explore other financing options to maintain shareholder value.

Financial Leverage: In this study, financial leverage is measured using debt-to-equity ratio. The debt-to-equity ratio measures a company's proportion of debt to equity in its capital structure and a key driver of dividend payout decisions. It's calculated by dividing total debt by total equity. In the context of dividend payout decisions, a high debt-to-equity ratio suggests that a significant portion of the company's capital comes from debt. Companies with high debt levels may prioritize using their earnings to service debt obligations rather than distributing dividends. This is because servicing debt is a contractual obligation, and not meeting these obligations can have serious consequences, such as higher interest costs or even bankruptcy. Hence, high financial leverage can lead to a lower dividend payout ratio as more earnings are allocated to debt obligations. On the other hand, a lower debt-to-equity ratio indicates a smaller reliance on debt for financing. Companies with lower debt levels may be more inclined to distribute profits to shareholders as dividends since they have fewer mandatory debt payments to fulfil.

Liquidity: Liquidity refers to the availability of cash or easily convertible assets in a company. Liquidity is a crucial determinant of dividend payout decisions as it influences a company's ability to meet its financial commitments, including distributing dividends to shareholders. Liquidity plays a vital role as a company needs sufficient cash to distribute dividends to its shareholders. If a company lacks liquidity, it may face challenges in meeting its short-term obligations, such as paying bills or servicing debt. Therefore, before deciding on dividend payouts, management assesses the company's liquidity position to ensure it can comfortably cover both operational needs and dividend payout, as it can reliably meet its financial obligations. On the contrary, a company facing liquidity constraints might need to prioritize retaining earnings to address immediate financial needs, leading to lower or no dividend payouts.

2.2 Theoretical Framework

Theories of dividend policy are frameworks that attempt to explain how companies make decisions about distributing dividends to their shareholders. They tend to explain a connection between dividend patterns and various determinants of these patterns. Each theory offers different insights into why companies might choose to pay dividends, retain earnings, or follow certain patterns of dividend payments. Some of the theories of dividend policy relevant to this study are explained below:

- 1. **Residual Dividend Theory:** According to Miller and Modigliani (1961), a company should only distribute dividends after meeting all their investment needs. This means that dividends are a residual of earnings, and the amount of dividends paid should not affect the value of the company. This approach aims to maximize the value of the firm by ensuring that profitable investment opportunities are not forgone in favour of paying dividends.
- 2. Clientele Effect Theory: Different investors have varying preferences for dividend income and capital gains. This theory states that different policies attract different types of investors. Accordingly, firms establish and maintain a consistent dividend policy to attract and retain a certain type of investor clientele. In other words, companies adjust their dividend policies to cater to the preferences of their target investors, creating a stable shareholder base. Therefore, changes in a firm's dividend policy may lead to loss of old clientele and gain of new clientele whose preferences align with the firm's new dividend policy.
- **3.** Catering Theory of Dividend: The catering theory of dividends suggests that companies adjust their dividend policies to meet/cater to the preferences/desires/expectations of their shareholders/investors in order to attract and retain them. According to this theory, companies adjust their dividend payments based on the desires of different groups of shareholders. According to this theory, companies try to attract and retain investors by setting dividend policies that align with the preferences of their target shareholders/investors. For example, if a company believes that its investors prefer stable and predictable dividends, it will adopt a policy of paying consistent dividends over time. On the other hand, if investors prefer capital appreciation and are not concerned with regular dividend payments, the company may reinvest its earnings instead of paying dividends. This theory is associated with the work of John Lintner, who proposed it in the 1950s. This theory is just one perspective on why companies make dividend decisions. According to Baker and Wurgler (2004),decision by managers to pay dividends is energized by prevailing demand by investors for dividend payers.
- 4. Outcome Theory of Dividends: The outcome theory of dividends, also known as the "bird-in-the-hand" theory, was proposed by Gordon (1959) and Lintner (1956). This theory suggests that investors prefer to receive dividends today rather than relying on the uncertain future capital gains from reinvested earnings. It argues that investors place a higher value on current dividend income as it provides a more certain return, akin to having a "bird in hand." In other words, they believe that a "bird in the hand is worth two in the bush." It's based on the idea that investors are generally risk-averse and uncertain about future stock prices, so they place a higher value on receiving cash dividends in the present.
- **5. Substitute Model of Dividends:** The substitution model of dividends suggests that investors are indifferent between receiving dividends from a company and capitalizing their returns by reinvesting earnings themselves. In other words, according to this model, investors do not consider the dividend policy of a company when making investment decisions because they can create their own dividend by selling a portion of their shares if the company does not pay dividends but reinvests retained earnings to generate capital gains. This theory is based on the

belief that the total return to shareholders (dividends plus capital gains) is what matters to investors.

6. The Behavioral Theory: This theory as propounded by Thaler and Tversky argues that investors' behavior can influence dividend policy. An example of how investor behavior can influence dividend policy is if investors are loss averse. This means that they are more likely to feel the pain of a loss than they are to enjoy the pleasure of a gain. As a result, companies may be more likely to pay dividends in order to avoid the negative reaction of investors if they do not pay dividends.

Empirical Review

Setiawan and Vivien (2021) investigated the drivers of firms' dividend policy (propensity to pay dividends and the ratio of dividend payout). The study employed two regression models adopting logistic regression and multiple regression to achieve the study objectives. Thirty-eight (38) samples of Model 1 (propensity to pay dividends) and twenty (20) samples of Model 2 (the ratio of dividend payout) were selected from the consumer goods sector for the period 2015–2018. Five variables were considered which includes profitability, investment opportunity set, capital structure, firm size and stock liquidity. The study results evinced that profitability and firm size significantly affect both firm's propensity to pay dividends and dividend payout ratio, investment opportunity set and capital structure significantly affect dividend payout ratio, however, with insignificant effect on the dividend paying decision. Contrarily, stock liquidity has no effect on both propensity to pay dividends and the ratio of dividend payout.

Alaeto (2020) examined the determinants of dividend payouts by non-financial firms listed on the Nigerian Stock Exchange (NSE) using a sample of 74 quoted non-financial companies for five years (2013 - 2017). Dividend intensity and the dividend payout ratio were employed as proxies for dividend policy. More so, six explanatory variables (return of assets, debt ratio, size, growth opportunities, tangibility of assets, liquidity ratio) were selected, based on the theoretical predictions and empirical findings from extant literature reviewed. Pooled Ordinary Least Squares (OLS) models were employed in analysis. The results of the study show that a positive relationship between profitability, growth opportunities, liquidity and dividend payouts whereas debt ratio, size and asset tangibility are negatively related to dividend payouts of listed non-financial firms in Nigeria. The study further revealed that time and industry effects do not have much impact on the dividend payouts of Nigerian firms.

Obafemi and Araoye (2020) examined dividend tax policy and dividend payout of consumer goods firms in Nigeria. The study employed a cross-sectional approach using both explanatory and exploratory design, fifteen out of twenty-one quoted consumer good firms on the Nigeria stock exchange (NSE) as at December 2018 were randomly selected to constitute the study sample. Four hundred copies of structural questionnaire were distributed but only three hundred and twenty copies were correctly completed and useful for the analysis. The study revealed that dividend tax policy was significant on a dividend payout. When the moderation variable effect (inflation) was considered, it was also found that dividend tax policy influenced dividend payout of the selected firms. The study further revealed that tax policy has significant effect on dividend payout in the selected firms. The study therefore recommended that management of firms should adopt more of stock dividend policy than cash concluded payout.

Heorhiy, Oleh, Nataliya, Mykhailo and Tetiana (2020) investigated factors that affect the dividend policy of non-financial joint-stock companies in Ukraine using a sample of 58 Ukrainian non-

financial public joint-stock companies. The study hypotheses which centers on the impact of a company's financial state, ownership structure, size and business risk on dividend payments were tested using Interactive tree classification techniques (C&RT). An advantage of the tree classification technique is its ability to study a large number of factors without the risk of reducing the reliability of the results, since the algorithm selects the most significant among them which are only used to construct a classification tree. The classification involved 92.86% of companies that paid dividends and 93.3% of companies that did not pay dividends. The results of the study evince that companies in which individuals and institutional investors have a controlling interest are more likely to pay dividends than other non-state companies.

<u>Dewasiri</u>, Yatiwelle Koralalage, Abdul Azeez, Jayarathne, Kuruppuarachchi and Weerasinghe (2019) investigated the drivers of dividend policy in an emerging and developing market using 191 Sri Lankan firms over a seven(7) year period. Binary Logistic Regression model was employed to uncover the drivers of the propensity to pay dividends while a Fixed Effect Panel Regression was used to investigate the drivers of dividend payout. The study results revealed that earnings, past dividend decision, investment opportunities, free cash flow (FCF), profitability, corporate governance, firm size, state ownership and industry influence are major drivers of the propensity to pay dividends while dividend premium, past dividends, profitability and investment opportunities are a common set of dividend policy drivers with implications for both propensity to pay dividends and its payout.

Geetanjali and Shailesh (2019) carried out a sectoral analysis of drivers of dividend policy in Indian's financial market. The study also examined the explanatory factors for dividends across individual sectors in India. The study employed companies listed on the National Stock Exchange (NSE) of India for 12 years—from 2006 to 2017. Pooled ordinary least squares (POLSs) and fixed effects panel models were used in our estimation. The results of the study show that size, interest coverage ratios and profitability positively and significantly affects dividend policy whereas business risk and debt reveal a negatively and significantly affects dividend policy. The findings of the study also evince that dividend policies vary significantly across India's industrial sectors.

Torbira and Otokwala (2019) investigated industry specific determinants of dividend policy decision of deposit money banks in Nigeria from 2000-2015 using the dynamic multivariate model specifications for panel data. The study also employed the Johansen-Fisher Panel Co-integration technique to estimate the adjusted long run parameters among the variables. Vector Error Correction Method was also employed to estimate the joint and individual short run and long run dynamic influence of the variables. The results of the study show that earnings per share and liquidity ratio have a positive and significant long run relationship with dividend payout ratio whereas leverage ratio exhibit positive but insignificant relationship with dividend payout ratio in the long run.

Yusuf (2019) investigated the factors that affect dividend decision in 299 companies (200 active, 9 dead) listed on Nigerian stock exchange market for a period of 13 years (2002 to 2014). The dividend decisions in the pre-crisis, crisis and post-crisis periods were compared. The study employed correlation, multiple regression and descriptive statistics in the data analysis. Three regression models were constructed for each period to enable a comparative analysis of pay-out policies in the three periods. The companies were segregated into active and dead groups for the purpose of the analysis. Six possible determinants of dividend policy which includes firm size, profitability, growth opportunities, liquidity, financial leverage and business risk were considered. Liquidity and growth opportunities are common predictors in the three periods. The correlation results revealed that a

positive relationship exists between firm size, profitability, liquidity and dividend policy whereas growth opportunities and financial leverage negatively and insignificantly affected dividend decisions throughout the three periods for active companies. Similarly, for the dead companies growth opportunities negatively affects dividend decisions with conflicting results in the other variables in the three periods. However, business risk although omitted in most of the period analysis due to missing values has a positive relationship with dividend policy for both dead and active companies. The study further revealed that firm size is the most correlated with dividend policy in Nigerian active companies throughout the periods whereas liquidity mostly determined dividend policy for dead companies before the crisis but risk became more important during the crisis with a combination of profitability, leverage, size and growth afterwards. Furthermore, the ANOVA results reveal that the identified predictors of dividend policy became less relevant during and post-crisis in Nigeria.

Yahaya (2019) conducted a study on the impact of dividend payout on present net earnings per share of consumer goods firm quoted on Nigeria stock exchange using a correlational research design. The aim of this study was to find out the impact of dividend payout on present net earnings per share of consumer goods firm quoted on the Nigerian Stock Exchange over 2008-2014 financial years. Present net earnings per share was measured using Present net earnings per share (EPS) and Return on Equity (ROE). The effects of dividend payout ratio on EPS and ROE were analyzed via longitudinal panel data. The study also employed a sub-sample in order to arrive at a profound conclusion with regard to the impact of dividend policy on corporate profitability. The results of the regression analysis revealed that there was a significant relationship between dividend payout and corporate present net earnings per share in terms of present net earnings per share and return on equity. A positive significant relationship was found between dividend payout and present net earnings per share on one hand and return on equity on the other hand. It was recommended that, as the ultimate objective of a corporate is to maximize shareholders' wealth hence the firm value, firm mangers should design and implement a dividend policy that will enhance the corporate present net earnings per share and shareholders' wealth.

Methodology

The population of this study consists of all the consumer goods manufacturing companies operating in Nigeria. They include companies that are engaged in the production and manufacturing of final goods, products categorised for personal use, specifically intended for the mass market, goods (durable and non-durable consumables) that are consumed rather than used in the production of other goods. According to the Nigerian Stock Exchange and National Bureau of Statistics, there are twenty (20) consumer goods manufacturing companies in Nigeria as at 31st December 2019 which served as the population of this study. However, six (6) consumer goods manufacturing companies in Nigeria representing about thirty percent (30%) of the entire population formed the study sample based on convenience and they include; Cadbury Nigeria Plc., Dangote Sugar Refinery Plc., Guinness Nigeria Plc., Nestle Nigeria Plc., Nigerian Manufacturing Firms Plc. and Unilever Nigeria Plc. The panel data (time series and cross sectional) employed in this study are secondary in nature and obtained from the Nigerian Stock Exchange (NSE) publication and the audited annual reports of the selected quoted consumer goods manufacturing companies in Nigeria over a period of nine (9) years, spanning from 2011 to 2019.

3.1 Model Specification

Based on the theoretical postulations of Weston and Brigham (1986), Osiegbu (2005) and other similar previous empirical reviews, we hypothesize that dividend payout ratio depends on the following internal factors (present net earnings per share, cost of floating new shares, debt to equity ratio and liquidity). The model equation for this study is as follows:

 $DPR_{it} = \beta_0 + \beta_1 EPS_{it} + \beta_2 CFN_{it} + \beta_3 LEV_{it} + \beta_4 LIQ_{it} + \varepsilon_{it}$ (1)

Where:

DPR_{it} = Dividend Pay-Out Ratio EPS_{it} = Present Net Earnings Per Share CFN_{it} = Cost of Floating New Shares LEV_{it} = Debt to Equity Ratio LIQ_{it} = Liquidity β_0 = Intercept, β_1 - β_4 = Slope of the coefficients ϵ_{it} = Error Term

3.2 Methods of Data Analysis

The study employed various panel data analysis which includes panel unit root test, panel regression and panel co-integration test. An advantage of a panel data approach is that unobserved countryspecific effects are controlled, and, thus, biases are reduced in the estimated coefficients.

3.2.1 Panel Unit Root Test

Panel unit root tests are used to assess whether time-series data in panel datasets exhibit unit root behavior. A unit root implies that a variable is non-stationary, meaning it has a time trend and can be difficult to model accurately. Panel unit root tests extend traditional unit root tests to account for both cross-sectional and time-series dimensions in panel data. This test helps to determine whether variables are stationary or not, which is crucial for accurate modeling and econometric analysis. Few commonly used panel unit root tests include Levin-Lin-Chu (LLC) Test (Levin, Lin & Chu test, 2002); Im-Pesaran-Shin (IPS) Test (Im, Pesaran, & Shin, 2003) and Fisher-type Panel Unit Root Test (Fisher, 1932); ADF-Fisher Chi-Square Test (Choi, 2001); Maddala-Wu Test (Maddala & Wu, 1999) and Harris-Tzavalis (HT) Test (Harris & Tzavalis, 1999).

Hypothesis:

H₀: $\beta > 0$ (there is unit root in the series).

H₁: $\beta_0 - \beta_1 < 0$ (the series are stationary)

The hypothesis is tested on the basis of t-statistic of the coefficient \Box

Decision Rule: Reject H_0 if test statistic is less than critical values, otherwise do not reject (Haris & Sollis, 2004).

Panel Regression

Panel regression, also known as panel data regression or longitudinal data analysis, is a statistical method used in econometrics to analyze data that has both cross-sectional and time-series dimensions. Panel regression can be used to estimate the effects of independent variables on a dependent variable, while controlling for individual or entity-specific effects. Panel regression allows you to account for both individual variation (cross-sectional differences) and time-related changes (time-series dynamics) in your analysis. It is a powerful tool for addressing issues like individual heterogeneity, unobserved factors, and dynamic effects. Panel regression provides more efficiency and information compared to purely cross-sectional or time-series analysis. It allows researchers to control for a wider range of factors and better understand the relationships between variables in a more complex and realistic setting.

Panel regression has several advantages over traditional cross-sectional and time-series regression. First, panel regression can help to reduce omitted variable bias. This is because panel regression can control for individual or entity-specific effects that are constant over time, but may vary across individuals or entities. Second, panel regression can help to increase the efficiency of our estimates. This is because panel regression uses more information than traditional cross-sectional and time-series regression. The most common types of panel regression models are: Pooled OLS (Ordinary Least Squares), Fixed Effects Model and Random Effects Model.

Data Analysis

Panel Unit Root Test

To evaluate the stationarity tendencies of the employed variables, the ADF - Fisher Chi-square and ADF - Choi Z-statistics unit root tests are carried out and results presented in the Table 1.

	ADF - Fisher		ADF - Choi		
Variables	Chi-square	Prob	Z-stat	Prob.	Order of Integration
D(DPRit)	100.616	0	-5.89593	0	I(1)
D(EPSit)	75.8911	0	-4.16833	0	I(1)
D(CFNit)	128.384	0	-7.06346	0	I(1)
D(LEVit)	73.714	0	-3.91258	0	I(1)
D(LIQit)	71.781	0	-3.11747	0	I(1)

Table 1: Augmented Dickey Fuller Unit Root Test

Source: E views Output

The table above shows that the employed panel variables are stationary at first difference as all their probability levels are seen to be less than 1%, 5% and 10% significance level. This gives rise to further tests like the co-integration test which would be carried out after determining the type of model to utilize (pooled, random or fixed).

Panel Regressions (Panel Least Square)

The multiple regression was carried out using the Ordinary Least Square regression tool, as it is the best unbiased linear regression estimator, it was carried out in the normal and natural form. Pooled OLS (Ordinary Least Squares) ignores the panel structure and assumes that all entities are identical. In other words, it fails to evaluate individual heterogeneous tendencies that exist in each of our employed companies. This can lead to biased and inefficient estimates if there are entity-specific effects. Hence, we either employ the fixed effect or the random effect regression.

A fixed effects model or least squares dummy variable is a regression model in which the level (values) of independent variables are assumed to be fixed (constant) and only the dependent variable changes in response to the levels of independent variables. It is used to estimate the effect of one or more categorical variables on a continuous outcome variable while controlling for any other variables (unobserved individual or entity-specific factors) that may be influencing the outcome. The random effects model allows for the effect of the categorical variables to vary across the levels of the variables. This means that this model allows for the possibility that the effect of a variable may be different in different levels of the variable.

Fixed effect is appropriate when estimating the average effect of a variable within a group while random effect is appropriate when estimating the overall effect of a variable within multiple groups. The need therefore arises to determine which of the models (random or fixed effect) is most efficient for this study. One way to decide between a fixed effects model and a random effects model is to perform a Hausman test. This test helps to determine whether the random effects assumption (random effects are uncorrelated with the independent variables) is valid or if the fixed effects model is more appropriate.

Hausman Specification Test

To compare the random effect model with the fixed test model, the null hypothesis favours the random effects model i.e. z_i are uncorrelated with the explanatory variables. The null hypothesis is that the random effects model is appropriate whereas the alternative hypothesis is the fixed effects model is appropriate.

Variable	Fixed	Random	Var(Diff.)	Prob.		
Cross-section random effects test comparisons:						
Cross-section randor	n	62.161515	4	0.0000		
Test Summary		Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.		
Test cross-section ra	ndom effects					
Equation: Untitled						
Correlated Random Effects - Hausman Test						

Table 2: Hausman Specification Test Output

EPS	1.193380	0.975722	0.001874	0.0000
CFN	-1.049169	-0.900663	0.022871	0.3261
LEV	-7.160194	-2.625410	0.641579	0.0000
LIQ	-6.671449	0.365332	1.226751	0.0000

Cross-section random effects test equation:

Dependent Variable: DPR

Method: Panel Least Squares

Date: 07/05/21 Time: 00:58

Sample: 2011 2019

Periods included: 9

Cross-sections included: 6

Total panel (balanced) observations: 54

Coefficient	Std. Error	t-Statistic	Prob.		
36319009	5248544.	6.919826	0.0000		
1.193380	0.153494	7.774764	0.0000		
-1.049169	0.443986	-2.363069	0.0204		
-7.160194	1.571511	-4.556249	0.0000		
-6.671449	2.237966	-2.981032	0.0037		
Effects Specification					
my variables)					
0.886369	Mean depen	dent var	12021453		
0.862586	S.D. dependent var		27231462		
10094552	Akaike info criterion		35.25518		
8.76E+15	Schwarz criterion		35.73542		
-1831.897	Hannan-Quinn criter.		35.44978		
37.26861	Durbin-Wat	son stat	1.814343		
	Coefficient 36319009 1.193380 -1.049169 -7.160194 -6.671449 Effects Specie my variables) 0.886369 0.862586 10094552 8.76E+15 -1831.897 37.26861	Coefficient Std. Error 36319009 5248544. 1.193380 0.153494 -1.049169 0.443986 -7.160194 1.571511 -6.671449 2.237966 Effects Specification my variables) 0.886369 Mean dependendependependendependendependendependependendependependendependependendependependendependendependependendepende	Coefficient Std. Error t-Statistic 36319009 5248544. 6.919826 1.193380 0.153494 7.774764 -1.049169 0.443986 -2.363069 -7.160194 1.571511 -4.556249 -6.671449 2.237966 -2.981032 Effects Specification -2.981032 -2.981032 my variables) Mean dependent var -0.886369 0.886369 Mean dependent var 0.862586 S.D. dependent var 10094552 Akaike info criterion 8.76E+15 Schwarz criterion -1831.897 Hannan-Quinn criter. 37.26861 Durbin-Watson stat		

91

Prob(F-statistic) 0.000000

Source: E views Output

The Hausman specification test output via its cross section random chi square statistics of 62.161515 at a probability level of 0.0000 at 5% significance level leads to the rejection of the null hypothesis (the null hypothesis supports the random effect). The alternate hypothesis thus upholds the fixed effect model. Therefore, the validity of empirical output of the fixed model stands. Hence, we proceed to fixed effect regression.

Fixed Effect Regression

The result of the fixed effect model is presented in the table below;

Dependent Variable: DP	R				
	Method	: Panel Least Squ	ares		
	Date: 07/05/21 Time: 00:55				
Sample: 2011 2019	l				
Periods included: 9					
	Cross-se	ections included:	6		
	Total pa	anel (balanced) ob	oservations: 54		
Variable	Coefficient	Std. Error		t-Statistic	Prob.
С	36319009	5248544.		6.919826	0.0000
EPS	1.193380	0.153494		7.774764	0.0000
CFN	-1.049169	0.443986		-2.363069	0.0204
LEV	-7.160194	1.571511		-4.556249	0.0000
LIQ	-6.671449	2.237966		-2.981032	0.0037
	Effects Speci	ification			
	Cross-se	ection fixed (dum	my variables)		
R-squared	0.886369		Mean depende	nt var	12021453
Adjusted R-squared	0.862586		S.D. dependen	t var	27231462

Table 3: Fixed Effects Regression Output

S.E. of regression	10094552	Akaike info criterion	35.25518
Sum squared resid	8.76E+15	Schwarz criterion	35.73542
Log likelihood	-1831.897	Hannan-Quinn criter.	35.44978
F-statistic	37.26861	Durbin-Watson stat	1.814343
Prob(F-statistic)	0.000000		

Source: E views Output

From the results above, all the employed predictor variables are statistically significant and account for about 86.3 percent of variation in the criterion variable (DPR) as seen from the adjusted R^2 . The remaining 13.7% are attributed to factors not included in the model but captured by the error term. The f-statistics of 37.26861 at a probability of 0.000000 shows the model is a good fit. More so, the Durbin Watson value of 1.814343 is within the relevant range.

Discussion of Findings

Dividend payout ratio which is the dependent variable shows the amount of dividends paid to shareholders relative to the amount of the total net earnings of the manufacturing firms. It is obtained by the dividing the total amount of dividends paid by the total net earnings. Present net earnings per share is the ability of a company to make a profit. It is a gauge of how profitable a company is per share of its stock. The results of the study show that present net earnings per share is positive and significantly influence the dividend payout of the selected manufacturing firms. This tallies with the a priori expectation since it is expected that the higher the profit, the higher the capacity of the company to distribute dividends to shareholders. Cost of floating new shares exerts a negative and significant influence on dividend payout. This result is equally consistent with our a priori expectation as higher cost of floating new shares should lead to lower dividend payout and vice versa. High flotation costs which is the cost of issuing new securities i.e. underwriting fees, legal fees, registration fees, etc., cause external equity to be costlier than internal equity (retained earnings). So, the company will prefer to use the internally generated earnings (retained part) which will ultimately reduce the amount of dividends paid.

In this study, financial leverage is proxied by debt to equity ratio. Our results reveal that Debt/Equity Ratio (leverage) has a negative and significant influence on the dividend payout of the selected firms implying that higher leverage results in lower dividend payouts. Financial leverage simply means the presence of debt in the capital structure of a firm. Firms that are highly levered (large debt obligations) are burdened with principal and interest payments which reduces their ability to maintain dividend payments. They tend to prioritize debt repayment over dividend payments to maintain financial stability. Nonetheless, the use of debt has been associated with lower agency cost and enhanced firm profitability, both of which have the tendency of improving dividend payment.

Liquidity is the measure of the extent to which a firm has cash or assets that can be quickly converted to meet immediate and short-term obligations. A firm with a poor liquidity position means it will be less generous in paying dividend due to shortage of cash whereas companies with greater liquidity maintain or even increase dividend payout levels. The expectation is that a high liquidity position leads to high dividend pay-out ratio implying a positive relationship. However, our results evince that liquidity has a negative and significant influence on dividend payout in the manufacturing industry. This confirms the fact that the liquidity position of a firm is an important driver of its ability to pay dividend. However, the negative relationship contrary to a priori could be attributable to these firms exploiting profitable investment opportunities that will translate to more profits instead, thereby decreasing their level of dividend payment. Hence, adequate liquidity is tantamount to lower dividend payments.

Conclusion and Recommendations

This study evaluated the internal drivers of dividend policy in selected quoted manufacturing firms in Nigeria over the period 2011 - 2019 using secondary data obtained from the annual financial reports of the selected firms and the Nigerian Stock Exchange Fact book. The study employed the stationarity test which showed that all the variables are stationary at first difference I(1). The panel regression test using the fixed effect model as confirmed by the Hausman test revealed all the variables employed are significant and conformed to the a priori expectation except liquidity. The findings of the study has confirmed that all the variables employed (Present net earnings per share, cost of floating new shares, liquidity and leverage) are all significant internal drivers of dividend payout in Nigeria's manufacturing firms.

Dividend payout is an important topic for both investors and companies. Investors are interested in dividend payout because it represents a return on their investment. For companies, their dividend decisions can signal their financial strength, future prospects and performance to investors. It can also help to build trust and confidence among their shareholders. Dividend payout is a complex decision that is influenced by a number of factors (internal and external). Companies need to carefully consider and weigh all of these factors when setting their dividend payout policy so as to maximize shareholder value. Ultimately, the appropriate dividend policy should align with the company's financial health, strategic goals and the expectations of its shareholders. All these factors should be regularly reviewed to adapt the dividend strategy as needed.

Following the results of this study, the following recommendations are made;

- i. There is need to ensure healthy, consistent and growing earnings so as to guarantee a stable and healthy profit margin from where dividends are paid from.
- ii. Manageable debt to equity ratio should be maintained to ensure financial flexibility as high debt levels can limit a company's ability to pay dividends.
- iii. Adequate liquidity should be maintained to cover dividends by ensuring availability of cash or easily convertible assets on hand to meet dividend obligations without harming the company's operations or growth even during periods of economic uncertainty.
- iv. Retained earnings or other financing methods may be more cost effective for dividend payouts when floatation costs are too high.

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