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Impact of Dividend Payout Ratio on the Value of the Firm

Edeh Lawrence<sup>1</sup> Orji Uka Odim<sup>2</sup> and Ifeanyi Ogbonna<sup>1</sup>

<sup>1</sup>Department of Accountancy, Tansian University, Umunya, Anambra State, Nigeria.

<sup>2</sup>Department of Economics, Tansian University, Umunya, Anambra State, Nigeria.

\* **E-mail**: orjiuka07@yahoo.com

#### **ABSTRACT**

The purpose of this study was to examine the impact of dividend payout ratio on the value of the firm. The study also examined other factors that affect the value of the firm employing the companies listed in the Nigerian stock exchange. The factors which were considered to affect the value of the firm in this study are profitability, debt policy ratio, dividend policy ratio, cash holding and the size of the firm. The sample in this study is the breweries and beverages companies listed on the Nigerian stock exchange between the periods 2007 -2014. This study employed panel regression in the course of analyzing the collated data. Source data were obtained from published financial statements of the company from the Nigerian stock exchange market, with a sample size of nine (9) beverage companies and two (2) brewery companies. The results showed that only profitability ratio and leverage ratio significantly and positively impact on the value of the firm. While cash holding policy, dividend policy and the size of the firm has no significant effect on firm value.

Keywords: Profitability, Debt Policy, Dividend Policy and Firm Value.

## INTRODUCTION

In the world of business, the creativeness of management is of utmost importance as to improve performance and thereby boost productivity. Management should have the abilities and should be able to take advantage of any opportunity to improve firm performance which will ultimately improve firms' value. It is important to improve the firms' performance with strategies, techniques and business tools that are appropriate and suitable for the firm [1].

[1], point out that firm performance acts as a barometer of the success of the company which will be seen as a standard for investors to invest their funds. A high firm performance will drive the firm's stock market price up, and investors will respond positively as a result of the upward signal. As a symbol of the firm value, the upward

movement of stock market prices shows that the firm value is also increasing. Therefore, the value of the firm is broadly determined through stock price increases.

Debt financing is considered as the cheapest source of financing a firm. For example if a firm uses low cost factors like low cost material, low cost wages, then the firm is likely going to be profitable in the long run. Hence, the tradeoff theory predicts that higher debt is related to higher profits. However, there are three main reasons to support this theory; firstly, it is argued that debt allows for tax shield. Secondly, investors believe that profitable firm will not go bankrupt invariably giving high profitable firms the advantage of investors trust and the leverage to seek more debt. Thirdly, in the case of agency cost of profitable firms, lenders/creditors give relaxation in monitoring charges, thereby reducing the debt cost. This encourages profitable firms to go for more debt [2]. The influence of dividend policies on firm performance is a determinant for an appropriate capital structure and is a critical decision for any business. The fast- changing nature of the modern business environment shows that planning should be a continuous exercise of management team [3].

#### STATEMENT OF THE PROBLEM

Based on the results of previous studies that indicate a research gap, the author is interested in re-researching the impact of firm's characteristics (profitability, leverage policy, cash holding policy ratio, dividend payout policy, and firm size) on the value of the firm. The purpose of this research study was to test empirically whether profitability, debt policy, cash holding ratio firm size and dividend policy impact on the value of the firm. This subject is interesting as the value of the firm is very important because it reflects the performance of the firm which can influence investors' perception of the company associated with the value of the firm's stock price, such that the higher the value of the firm's stock price, the higher the shareholder's wealth. This study is unique to the best of my knowledge in that no researcher has been able to apply Tobin Q variable for firm value in the Nigerian beverages context.

## **OBJECTIVES OF THE STUDY**

The overall objective of this study was to examine the impact of dividend policy on the value of the firm. Specifically, this study seeks to;

• Determine the relationship between profitability and firm value of listed companies in Nigeria.

• Analyze the relationship between leverage and firm value of listed companies in Nigeria.

- Examine the influence of dividend payout ratio on firm value of listed companies in Nigeria.
- Investigate the influence of cash holding ratio on firm value of listed companies in Nigeria.
- Find out the impact of firm size on firm value of listed companies in Nigeria.

#### STATEMENT OF THE HYPOTHESES

In order to provide a background for assessing the impact of dividend policy on firm value of Nigerian banks the following five hypotheses were formulated in their null form:

- H0<sub>1</sub>: There is no significant relationship between profitability and firm value of listed companies in the Nigerian.
- H0<sub>2</sub>: There is no significant relationship between cash holding and firm value of listed companies in the Nigerian.
- H0<sub>3</sub> There is no significant relationship between dividend payout policy ratio and firm value of listed companies in the Nigerian stock exchange.
- ${
  m HO}_4$  There is no significant relationship between leverage and firm value of listed companies in the Nigerian.
- ${
  m HO}_{\scriptscriptstyle 5}$  There is no significant relationship between firm size and firm value of listed companies in the Nigerian.

#### Profitability Vs Firm Value

Profitability is a very important determinant of business performance so that in the long run, the manager must be paid a competitive return on the contributed resources if the business is to continue. But in the short run, the manager must earn sufficient return to at least pay for variable costs. However, if this is not possible, then some short- term actions to minimize losses will be necessary. [4], argues that there are a number of financial measures that can provide further insight into a firm's profitability.

Following [5], firms with more likelihood of agency problem employ more debt to reduce availability of free cash flow at the disposal of managers and also to restrain them from bad investment decision. Profitability is the net profit level that can be achieved by the

company during the period of its operation. Profit distributed to shareholders is profit after interest and tax. The larger the profits, the greater the company's ability to pay its dividend, and this in effect, influences the value of the company positively.

[6 and 7], defined profitability as the ratio of operating income to total assets. Profitability in this study was measured by Earning Power, based on the model of [8], this was achieved by dividing operating income by total assets. This ratio describes the company's ability to generate profit from each dollar of assets used. By knowing this ratio, it can be determined whether the company is efficient in utilizing its assets in the firm's operations.

## Leverage and Firm Value

Incurring liabilities will increase the level of risk on the firm's revenue flow. This effect is drawn from external factors while income raises the debt expense regardless of the amount of income. Thus, the greater the debt, the greater the likelihood of the company unable to pay fixed obligations such as interest and principal. Bankruptcy risk will be high since the rates will rise higher than the tax savings. The research of [9], found that leverage has a significant negative effect on firm value.

In [10], it is stated that the conflict between debt-holders and equity-holders arises because debt contract gives equity-holders an incentive to invest sub optimally. So much more, in the event of an investment yielding large returns, equity-holders receives the majority of the profits. However, in the case where the investment fails due to limited liability, debt-holders bear the majority of the consequences. In other words, if the project is fruitful, the creditors will be compensated with a fixed amount and the firm's shareholders will benefit from its improved profits. On the other hand, if the project fails, the firm will default on its debt, and shareholders will invoke their limited liability stance. In the case of asset substitution problem between shareholders and creditors, shareholders may choose not to invest in profitable projects (under invest) if they know that they would have to share the returns with creditors.

Debt policy is measured by the proportion of the structure of leveraged debt divided by total assets. This formula indicates that the higher the leverage of the firm, the higher the company's debt risk, this will result to decreasing the value of the firm, due to the higher leverage which will cause financial distress so that the value of the firm decreases. These results follows [11], study which proved that leverage variables used to measure the capital structure has a negative effect on firm value.

**Dividend Payout Policy and Firm Value** 

There are three groups of arguments, the first group championed by Modligami-Miller (MM) argued that dividend policy is irrelevant meaning no dividend policy is optimal because dividends do not affect firm value. The second group championed by Gordon-Lintner opined that dividend is less risky than capital gains, the resulting after-tax dividends will offer a higher dividend yield, so that it can minimize the cost of capital. The last category suggested that when dividend tends to be taxed as dividends rather than capital gains, then investors will require a higher rate of return for stocks with high yields dividend. This category of researchers suggested that the higher the dividend payout ratio (DPR), the lower it will maximize firm value. However, this opinion seems contradictory, but it can be said that the payment of dividends is often followed by a rise in stock prices. The increase in dividend payments is seen as a signal that the company has good prospects. Conversely a decrease in dividend payments will be seen as decreasing the value of the firm [12].

Most firms that commits to issuing dividends to shareholders will believe that dividend policy can affect value of firm's stock price. This is so because dividend reflects firm's prospects to get profit in future. Dividend payout policy is expected to give a positive signal regarding to firm condition. Thus, dividend policy can increase firm value [13, 14 and 15.

## Dividend Irrelevance Proposition: [16] Approach

The 1960s saw two noble laureates, Merton Miller and Franco Modigiliani show that under certain simplifying assumptions, a firms" dividend policy does not influence its value. The fundamental premise of their argument is based on the fact that firm value is determined by choosing optimal investments. The net payout is the change between earnings and investments. Since the net payout comprises dividends and share repurchases, a firm can fine-tune its dividends to any level which may alter its share outstanding. From the view point of investors, dividends policy is irrelevant, since any desired flow of payments can be replicated by appropriate purchases and sales of equity. Hence, investors will not pay a premium for any particular dividend policy.

Merton Miller and Modigiliani concluded that given firms optimal investment policy, the firm's choice of dividend policy has no impact on shareholders wealth. The most significant insight revealed by Miller and Modigliani's analysis is that it recognizes the situations in which dividend policy can affect the value of the firm. It could matter, not because dividends are "benign" than capital gains, as was usually argued, but because one of the assumptions underlying the result is violated. However, Miller and Modigiliani based their findings on the following assumptions:

- Information is free and available to everyone equally.
- Zero distortion of taxes.
- Flotation and transportation costs are non- existent
- No agency cost exists

## **Dividend Policy and Agency Problems**

The level of dividend payments is in partly determined by shareholders preference as implemented by their organization's representatives. However, the impact of dividend payments is borne by several claim holders, including debt holders, managers, and supplier. The agency relationship exists between the shareholders versus debt holders' conflict, and the shareholder versus management conflict.

Shareholders who are referred to be the sole recipient of dividends, will prefer to have large dividend payments, all else being equal; conversely, creditors wish to restrict dividend payments to maximize the firm's available resources to enable repayment of claims. Empirical evidences are consistent with the opinion that dividends transfer assets from the corporate pool to the exclusive ownership of the shareholders, which negatively affects the safety of claims of debt holders.

In terms of shareholder- manger relationship, all things being equal, managers, whose reward is tied to firm profitability and size, are interested in low dividend payout levels. A low dividend payout maximizes the size of the assets under management control, maximizes management flexibility in choosing investments, and reduces the need to turn to capital markets to finance investments.

Shareholders desiring managerial efficiency in investment decisions, prefer to allow little discretionary cash in management's hands and to make mangers turn to capital markets to finance investments. These markets offer monitoring services that discipline managers. Accordingly, shareholders can use dividend policy to encourage managers to look after their owners" best interests; higher payouts provide more monitoring by the capital markets and more managerial discipline.

# Dividends Relevant Theories Lintner Model

In 1959, Lintner developed a classic model that incorporates the dominant factor of dividend policy and was based on a sample of 28 industrial USA firms in the 1950's [17], conducted interviews with chief executive officers (CEO's) and chief financial officers (CFO's) and found that dividend policy is an active variable, because managers believe that stable dividends reduce adverse investor reaction. [17], noted that retained earnings and dividend payments are merely dividend policy by-product, thus emphasizing the active

factor of dividend policy and that in general, shareholders prefer smoothed dividend policy. [17], further found that managers believe that investors prefer stable dividends and are of the view that markets put a premium on firms which have a stable dividend policy. As such, managers are unwilling in cutting down dividend payments.

Again, [17], observed that firms' earnings is one of the most important factors of changes in dividend policy. In his research, [17] found that most managers develop long-term payout ratios and periodically do adjustments to reach the desired ratios. Centered on interviews with 28 management teams, the study reported a target pay-out ratio of 50%. In addition, most of the firms had a standard with respect to speed at which they would move toward their pay-out targets.

Since managers are unwilling to cut dividends, this results in the growth of a consistent behavior in their dividend decision process. Managers implement a tradition of varying dividends over time in line with changes in their earnings. Further partial adjustment in dividend rates made in subsequent years is still seen as warranted. This policy of progressive partial appears to stabilize dividend distributions and provide consistency in the patterns of dividend action. This tends to reduce adverse investor reaction. Lintner argued that this further enables managers to live more comfortably with the unavoidable uncertainties regarding future developments [17. It follows that the relationship between current earnings and the existing dividend rate is the single important factor determining the amount of any change in dividends decided upon [18].

Lintner further states that since company earnings are frequently reported and receive wide audience in financial press, managers believe that, unless there are other compelling reasons to the contrary, their responsibility and standard of fairness and transparency require them to distribute part of any substantial increase in earnings to investors through dividend sharing.

Lintner used the following theoretical model to describe the decision making with respect to dividends:

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\Delta \mathrm{Di}_{t} = \alpha \mathrm{i} + \mathrm{ci} \left( \mathrm{D}^* \mathrm{i}_{t} - \mathrm{Di}_{(t \cdot 1)} \right) + u_{t} Where \Delta \mathrm{D}_{i} \mathrm{t} = \mathrm{the} change in dividend payments, \alpha \mathrm{i} = \mathrm{constant} \mathrm{D}^* \mathrm{i}_{t} = \mathrm{the} \ \mathrm{target} \ \mathrm{cash} \ \mathrm{dividend} \ \mathrm{payout} \ \mathrm{in} \ \mathrm{time} \ \mathrm{t} \mathrm{Di}_{(t \cdot 1)} = \mathrm{is} \ \mathrm{the} \ \mathrm{cash} \ \mathrm{dividend} \ \mathrm{payout} \ \mathrm{in} \ \mathrm{period} \ \mathrm{t-1} \mathrm{ci} = \mathrm{is} \ \mathrm{the} \ \mathrm{speed} \ \mathrm{of} \ \mathrm{adjustment} \ \mathrm{and} u_{t} = \mathrm{is} \ \mathrm{the} \ \mathrm{error} \ \mathrm{term}.
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Following the above model, dividends are built on current net income and firms will smooth dividend payments. Hence, when a firm's earnings rises and include some

transitory shocks, dividends are smoothed relative to income. When a permanent increase is expected in future earnings, dividends do not shift immediately but adjust gradually. The model also predicts a positive constant, which reveals a firm's bias to raise dividends rather than cut them.

Researchers are of the view that Lintner's model worked well between 1960 and 1970. The value of the constant was estimated as small but positive, the speed of adjustment was about 1/3 which indicates that dividends move by 1/3 from previous year's levels to the target each year. The target payout ratio varied from firm to firm with target pay-out ratios higher for slow growing to mature firms. However, in the 1990's and 2000's the model's performance dropped.

## The Signaling Theory

The signaling theory is centered on the idea that management of a company has perfect knowledge of the company, such as information about its current and future earnings, which is unavailable to the public and investors. This situation creates information asymmetric among both parties. This information crack between insiders and outsiders may cause the true intrinsic value of the firm to be unavailable to the market and as a result the true price may not always be an accurate measure of the firm value [19]. To bridge this gap, executives use dividends as a signaling technique which sends information to investors in the market. [20], noted that the information conveyed in firms announcing dividends can change the expectation of investors with regards to a firm's future earnings as investors use cash flow to equity as a way of valuing a firm.

Going by this theory, a firm has various ways in which it can disseminate information to the public, and an investor can gather information about the firm's future earnings via the signal coming from a company's dividend announcement, both in terms of the stability and changes in dividends. The choice of a firm to convey this information must be consistent; that is the signal must be accurate. [19 and 20], noted that a firm with poor future prospects should not give out false signals to the market, and the firm must be able to sustain the cost implication of conveying the information.

In [19], it was pointed out that although the information content of dividends signaling has been expressed earlier, it was not modelled until the late 1970's and early 1980's. They further noted that dividends are considered a credible signaling device because of the dissipative costs involved. In this light, [21], advanced a model in which cash dividends function as a signal of future cash flows of firms in an imperfect-information setting. The model, showed that the cost of signaling is the transaction cost associated with external financing. The model of [22], suggested that the dissipative cost is the distortion in the optimal investment decision while [23] model, suggested that the dissipative signaling cost

is the tax penalty on dividends relative to capital gain. Accordingly, both authors concluded that it is only good-quality (less-valued) firms that can use dividends to signal their prospects [19].

## **Agency Theory**

The assumption of a perfect capital market aligns with the M-M model of dividends irrelevance. Here, an assumption is that there is no conflict of interest amid shareholders and managers. However in reality markets are not efficient, which means that Agency costs do exist. The definition of [10], addressed agency relationship as a contract under which one or more persons (the principal) engage another person (the agent) to perform some service on their behalf. This includes delegating some decision-making authority to the proxy. In a further development [10], further stated that if both parties to the relationship are utility maximizers' seekers, there is good reason to agree that the agent will not always perform in the best interest of the principal.

As regards dividend theory, the agency problem simply refers to the principal-agent problem where the principal is the holder of the stocks and the agent is the manager [20]. The principal objective of any manager is to maximize the wealth of shareholders by operating the firm effectively and investing in ventures that offer maximum returns to shareholders. However agency problem may arise when managers and shareholders' interests are not in line with each other. Following [19], this is so as manager's interest are not necessarily the same as shareholders interest i.e. in cases of consuming excessive perquisites or over-investing in managerially rewarding but unprofitable investments. This will result to shareholders incurring a cost of monitoring managers, referred to as agency cost. However another challenge that exists is that the managers are consumed in the daily running of the business and they are more aware of investments that have greater returns [20].

The argument of [24], suggest that since managers are not the residual claimant to the firm income streams, there may be a considerable divergence between their interests and those of the other participants. He pointed out that one of the key sources of agency cost is risk aversion on the part of managers. Easterbrook noted that this will happen because managers have a substantial part of their private wealth tied in their firms, while shareholders, with diversified portfolios of stocks, will only be concerned with risky investments that offer higher returns. If the performance of a firm is poor or goes bankrupt a manager loses more than an investor with a varied portfolio. He therefore argued that managers will be concerned about total risk and their personal risk aversion will magnify this concern [24].

According to [24], the risk-averse managers may select projects that are safe but have a lower expected return than riskier ventures. Shareholders on the other hand have the direct opposite preference since riskier investments will enrich shareholders at the expense of creditors, thus shareholders would want managers to behave as risk-preference. This however, results in another agency problem between shareholders and debt holders. Debt holders assume that given the limits set by their contracts, shareholders prefer to take the maximum advantage [18]. Therefore creditors recognize this and try to control it in advance through bond debentures and other instruments; they also try to reduce their loss by demanding higher returns.

[24], suggested that both the monitoring and risk aversion problem are reduced if firms are constantly in the capital market for new capital. He argued that when firms pay dividends it forces them to remain in the capital market. When the firm issues new share's (or issue new debt including bonds and commercial papers) he argues that the firm's businesses will be reviewed by investment bankers, lawyers and public accountants. Thus managers who need to raise money consistently are more likely to act in investors' interests than managers who are immune from this kind of public scrutiny. Going forward, [24] further noted that the primary value of keeping firms constantly in the market for capital is that the contributors of capital are excellent monitors of managers, and this reduces the agency problem.

## The Tax Factor (Clientele Effect)

The classical paper of Miller and Modigliani claimed that in a perfect capital market world void of taxes and transaction costs, dividend policy, given its investment policy, has no impact on the firms share price. However, in a real world situation there are imperfect markets and there are taxes. According to [25], as seen in [26] the tax induced clientele argument is centered on shareholders' different tax statues, which causes shareholders to have a preference in respect of return from investment. According to [20], the clientele effect is a theory which describes the intention of investors to invest in firms which suit their factor endowments of which amongst the most common one is their tax circumstances. Stating further that there is an inverse relationship between stock returns (dividends) and tax level. Whenever dividends and capital gains are taxed differently investors arrange themselves into clientele, by their effective tax bracket. According to [27] as cited in [28], if investors are lucid, they should prefer lower taxes to higher taxes on the cash flows they receive from their investments, and this should amount to a preference for capital gains over dividends. Investors in a high tax bracket would prefer to invest in firms with lower dividends payments so as to pay less tax, while investors in lower tax bracket would invest in firms with higher dividends payments [20]. Thus, when a company picks a

specific dividend policy, the only effect is to attract a particular clientele. If a firm changes its dividend policy, then it attracts a particular clientele [29]. Here, investors can be categorized into three groups that include those who seek dividends pay-out, those who are interested in capital gains and those that are indifferent between dividends payout and capital gain.

The clientele tax induced effect as noted elsewhere in the world is different in South Africa. In South Africa, taxation on dividends has an interesting history as noted in [29]. Before the 90's dividends were taxed in the hands of shareholders. In 1993 a new tax on dividends known as Secondary Tax on Company (STC) was introduced. This tax was in addition to the normal company tax and this was done to make companies retain their profits for reinvestment rather than pay dividends. But 2012 saw the introduction of the New Dividend Tax (NDT) which replaced the Secondary Tax on Company (STC). This system allows dividends due to shareholders to be subject to a 10% withholding tax payable to SARS (South Africa Revenue Services) by the company on behalf of the shareholders.

## **EMPIRICAL LITERATURE**

The first research on the subject of dividend payout policy was carried out by [17], on American companies in the middle of 1950s. Results from the study show that dividend decisions made by companies are founded on the current profitability and in part on the dividends of the past year. However, since then, there have been a series of on-going debate on dividend policy and the results are inconclusive. [30], examining the Lintner model on the dividend policy upheld that firms will try to raise the dividend only when the dividends can be sustained in future.

[31], finds no convincing explanation to why companies pay dividends to their shareholders. However, in a similar study, [32], in their study established the fact that a firm's dividend policy is affected by the following factors: profitability, size, debt, risk, tangibility and growth.

Following [33], their study observed that risk is also a strong influential factor of firm's dividend policy. They suggested that a firm that has relatively stable earnings is often able to predict approximately what its future earning will be. In their opinion, such a firm is more likely to pay a greater percentage of its earnings than firm with unstable earnings.

In another study by [34] and [35], a statistically significant negative relationship was observed to exist between beta and dividend payout. These findings further suggest that firms having higher level of market risk will payout dividends at lower rate.

In the work of [36], he examined the determinants of dividends in Nigeria using the Lintner-Brittain model for the full sample of observations from 1984-1994. Findings show that the study indicate that there are no significant interactions between the conventional Lintner /

Brittain model and dividend payout policy of Nigerian firms. The conclusion is that the dividend behaviour of Nigerian firms are influenced by firm's size, growth prospects and the level of gearing.

[37], did a comparative study of Australia and Japanese firms, he opined that out of all the regressed variables of profitability, size, liquidity, leverage, risk, asset mix and growth, the dividend policies are affected positively by size in Australia and liquidity in Japan but negatively by risk in Japan only. The study also observed that industry effect was also significant in both Australia and Japan which indicates the importance of the industry in which a firm competes.

Similarly, [38], in a study of the possible link between ownership structure, corporate governance and firm's dividend payout policy observed that a positive association exists between dividends and earnings trend. Meanwhile, debt-to-equity was found to be negatively associated, previous investment opportunities where positively associated with dividend payout policy in India.

[39], examination of the impact of profitability, growth, risk, liquidity and expansion on the dividend policy of a corporation analyzed the financial data of over 10,000 publicly traded firms. The study found out that the dividend payout ratio is significantly affected by the profitability, growth, risk and liquidity.

Similar study in Iran carried out by [40], examined the association between management performance and the cash dividend of listed firms in Tehran stock exchange. Findings show that there is a significant positive relationship between management performances and cash dividends.

Also, similarly, [41], attempted to find out the determining factors of dividend policy in Tehran stock exchange market. Their conclusion show that firm's dividend policy aligns with the random talk model.

[42], examined the determinants of dividend pay ratio on the platform of financial statements of recognized firms in African exchange within a 6-year period. The findings of this research indicate a significant positive relationship between dividend pay ratio and earning, cash flow and tax and also a significant negative association between dividend pay ratio and risk, institutional ownership, development and the market to book value.

In the study carried out by [43], on the determinants of corporate dividend policy in Jordan for the period 1989-2000. The study found out that size, age and profitability of the firms where key determining factors of corporate dividend Policy in Jordan. The study further showed a strong support for the agency costs hypothesis which is broadly consistent with the pecking order assumptions.

Also, [44], found out that current dividends are affected by the past and future earnings. Furthermore, dividends were associated with net earnings but less strongly. Neither the age of the company had paying nor did its home sector have an impact on the amount paid on each share. However, firm size was found to have a significant effect on the dividend per share as compared to either the current, past or future net earnings.

[45], in their research examined the determinants of dividend payout ratio of the Indian Information Technology sector. Carrying out a pooled regression for a data spanning seven years, they found that cash flows, corporate tax, sales growth and market-to book value ratio do not explain the dividend payment pattern that existed in the information technology industry. However the study showed that, liquidity and beta (year-to-year variability in earnings) were noteworthy determinants.

In a similar work, [46], investigated the dividend policy of 50 listed firms in Egypt for the period 2003-2005. Findings from the research show that a significant positive association existed between institutional ownership and firms' efficiency.

Klein et al. (2005), study investigates the relationship between firm value measured by Tobin's Q, and indices of effective corporate governance (reports on business/ROB) for a sample of 263 Canadian firms. The results of this study showed that corporate governance does matter in Canada, and that the size of the firm was consistently negatively related to performance. More so, growth and performance were positively related.

In the research conducted by [47], to develop an understanding of corporate governance and its implications on corporate performance and economic performance, the study made the following findings: corporate governance matters for economic performance, insider ownership matters the most, outside ownership concentration destroys market value, direct ownership being superior to indirect. [48], examine a relationship between cash holdings and expected managerial agency problems. In this study firm value was measured by Tobins Q and independent variables includes: cash holdings, dividend payment, managerial control, and shareholders right. To analyze and examine the hypothesis, the study used regression analysis of cross- sectional data. The results of this study found a negative relationship between cash holdings and firm value.

Nevertheless, despite the series of prior empirical researches that have been undertaken, it is observed that most of these studies have emerged majorly from developed economies. However, in search of more light on dividend payout payout policy and firm value, this study will attempt to re-examine this theme from the perspective of the breweries and beverages companies in Nigeria.

## **METHODOLOGY**

The population and data in this study is all listed manufacturing companies on the Nigerian Stock Exchange from 2007 to 2014.

#### MODEL SPECIFICATION

To test the hypotheses of this study, firm value evaluation is postulated as a function of dividend payout ratio, leverage, cash holding, profit after tax and firm size. The choice of Panel Ordinary Least Square (POLS) for the research work is guided by the fact that its computational procedures is simple and the estimate obtained from the procedure have optimal properties which include linearly, Unbiasedness, Minivariance and mean square error estimation [49]. STATA Software was used to aid the regression analysis. In carrying out this work and the evaluation of financial Statement in investment decision, the research develops a compact form of out model as follow:

$$Y = b0 + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + \dots + \Sigma 1$$

Where:

Y = Dependent variables of quoted breweries and beverages companies.

X = Independent variable of quoted breweries and beverages companies.

b0 = Intercept for X variables of quoted companies.

Y = Co-efficient for dependent variables of quoted companies; donating the nature of relationship between variable Y (or parameters).

b1 = Co-efficient for independent variables of quoted companies; donating the nature of relationship between variables X (or parameters).

 $\Sigma i = The error team.$ 

The, model specification for the regression analysis therefore becomes;

Tobin Q =  $b_1$  (patm) +  $b_2$  (cashh) +  $b_3$  (tlbta) +  $b_4$  (dvpay) +  $b_5$  (fsize).....+  $\Sigma i$ 

Where:

Tobin Q = Proxy for Firm Value

patm = Profit after Tax

cashh = Cash Holdings.

Tlbta = Leverage Ratio

dvpay = Dividend Payout Ratio.

Fsize = Firm Size

#### INTERPRETATION OF RESULTS

This study investigates the impact of dividend payout ratio on firm value in Nigerian listed companies. The study uses only beverages and breweries companies listed in the Nigerian stock exchange that consistently paid and published dividend in their audited annual financial report between 2007 and 2014. A sample of 11 firms were selected from the

breweries and beverages companies to ensure adequate observation for statistical testing. The study adopted a panel data analysis to identify the possible firms' specific impacts of dividend payout ratio on the value of the firm. Other explanatory variables for the study includes Profit after Tax (PATM), Cash holdings (CASHH), Dividend Payout Ratio (DVPAY), Leverage (TLBTA), and the size of the firm (FSIZE).

To this end, we conducted descriptive statistics correlation matrix normality test variance inflation test fixed and random effect unbalanced panel data regression and the hausman test was also conducted to select between fixed and random effect models. The below is the descriptive statistics of the 11 Nigerian firms used in the study.

TABLE 1
Descriptive Statistics

Variables	Obs	Mean	Std. Dev	Jarque-Bera(P- value)
tobin q patm cashh dvpay tlbta fsize	85	3.595	6.994	0.000
	88	11.106	14.152	0.000
	88	7150.434	6979.048	0.001
	75	55.355	42.100	0.000
	88	59.009	15.298	0.129
	88	4.611	0.523	0.024
No of cross section	11	11	11	11

Table one show the mean (average) for each of the variables their standard deviation (degree of dispersion) and Jarque Bera (JB) normality test. The result in table one provided some insight into the nature of the selected companies that were used in the study.

Firstly, the small standard deviation of the variable of size of both breweries and beverages companies' in Nigeria shows that the sampled companies are dominated with either large or small companies. Also the small standard deviation of dividend payout ratio of the sampled firms showed a wide fluctuation in both high and low dividend payout ratio. The summary statistics showed that the average payout in both breweries and beverage companies during the period under study is fifty five naira which was actually paid out by Cadbury Plc, Dangote Sugar, Flour Mills of Nigeria, Guinness Nigeria Plc, National Salt, Nestle Nigeria Plc, Nigeria Breweries Plc, Pz Cussons and Uniliver Nigeria Plc.

This is an indication that most of the sampled firms in the study adopted company policy that was good enough to pay the mean dividend during the period under study. The descriptive statistics table also show that the level of cash holdings among the sampled companies is high with a mean value of seven million one hundred and fifty thousand four hundred and thirty four naira only. The standard deviation of cash holdings among the

listed companies stood at 6979.048 which implies that neither high nor low cash holdings dominated the firms in the sample.

Table 2 shows the skewness/kurtosis test for normality of the variables. The table revealed that all the variables of interest are normally distributed at both 1% and 5% level of significance except for the variable of leverage (tlbta) as seen in their p-values. However this should not be taken seriously since forecasting error due to outlier in the data is not of concern in the study.

In examining the associational relationship among the variables, I employed the pearson correlation coefficient (correlation matrix) and the result are presented in table 2

#### TABLE 2

## **Pearson Correlation Matrix**

```
correlate tobin patma
                         cashh dvpay tlbta
                                            fsize (obs=74)
                         dvpay tlbta fsize
tobin patma cashh
tobin 1.0000
                   1.0000
patma 0.9029
cashh -0.0890
                  0.0105 1.0000
dvpay -0.0682
                  0.0519 -0.0129
                                     1.0000
tlbta 0.1040-0.1445 -0.0458 -0.1270 1.0000
fsize -0.0514-0.0049 0.6152 0.2689
                                     0.07781.0000
```

In table 2, i focus on the correlation between firm value measured as Tobin Q and the individual explanatory variables.

The result shows that Profit after Tax (patm 0.09) and Leverage (tlbta 0.1040) are both positively associated with firm value while cash holding (cash -0.089), dividend payout ratio (dvpay -0.068) and firm size (fsize -0.051) all have a negative association with the dependent variable of firm value. The correlation matrix also revealed that no two explanatory variable are perfectly correlated. This means that there is the absence of multicolinearity problem in the model. Multi colinearity between explanatory variables may result to wrong signs or implausible magnitude in the estimated model coefficients and the bias of the standard errors of the coefficient.

## **REGRESSION RESULT**

However, to examine the cause-effect relationship between the dependent variables (TOBIN Q) and the independent variables (PATMA, CASHH, DVPAY, TLBTA, FSIZE) and to test our formulated hypotheses we used Panel Data Regression Analysis since the data had time series (2007 to 2014) and cross-section properties (11 quoted companies). The panel data regression results obtained are presented and discussed below

TABLE 3
Tobin Q Model
Pooled and Panel Regression Result

	Expected Sign	Tobin Q (OLS Pooled)	Tobin Q (Fixed Effect)	Tobin Q (Random Effect)
	+	0.464	0.540	0.526
patm		(22.88) {0.000}***	(31.73) {0.00}***	(31.01) {0.00}***
cashh	-	-0.00 (-2.00) {0.49}**	-0.000 (-3.87) {0.000}	-0.000 (-3.30) {0.001}***
tlbta	+	0.102 (5.22) {0.000}***	0.100 (4.64) {0.000}	-0.378 (-0.39) {0.698)
dvpay	+	-0.017 (-2.22) {0.030}**	-0.001 (-0.31) {0.756}	-0.005 (-0.87) {0.387}
Fsize	+	0.407 (0.51) {0.610}	-1.229 (-0.85) {0.397}	-0.378 (-0.39) {0.698}

Note: (1) Parentheses () are t-statistic while bracket [] are p-values (2) \*\*\* and \*\* are 1% and 5% level of significance respectively

#### **DISCUSSION**

In testing the cause-effect relationship between the dependent and independent variables the two widely used panel data regression models (fixed effect and panel data estimation techniques).

was employed. The difference in these models is based on the assumptions made about the explanatory variables and cross sectional error term.

In the above table we presented the two panel data estimation techniques (fixed effect and panel data estimator). The results revealed difference in their coefficients magnitude, signs but not did not necessary change the number of insignificant variables. In selecting from the two panel data models the Hausman test was conducted and the result shows that we should reject Ho (adopt random effect model and reject fixed effect model). This means that we should adopt the fixed effect panel regression results.

Following the above table, it should be noted that fixed effect panel regression model provided the following result.

Profit after Tax (patm) of the sampled firm in the study appears to have a positive significant influence on firm value even at 1% level of significance. This implies that profit after Tax (patm)

of both breweries and beverages companies in Nigeria during the period of study between 2007 and 2014 impacted positively and significantly on the value of the various companies listed in the study such that a unit rise in Profit after Tax raised the value of the company by 0.54 units. This result agrees with the study of [32 and 30], but does not support hypothesis one which states that profitability dose not have any significant influence on the value of the firm. Therefore we reject H<sub>0</sub> and accept H<sub>1</sub>

The variable of cash holding (cash) of the studied companies appeared to have a negative relationship with firm value and significant at 1%. This reveals that as the ratio of cash holdings of the sampled firms increases the value of the firms tends to fall. This result supports the findings of [50]. Furthermore, the apriori expectation is properly signed and supports hypothesis 2 which suggest that cash holdings does not have any significant impact on firm value in Nigerian listed companies.

The above result also reveal that dividend pay ratio of listed beverages and breweries companies in Nigeria has a negative influence on firm value but is seen to be insignificant. The corresponding coefficient of Dividend Pay Ratio (dvpay -0.001) and P-value of 0.76 indicates that if dividend payout ratio of these companies is boosted by 1 unit then the resulting effect would be a firm value depreciation of 0.001 units. This result supports [51], and also conforms to hypothesis 3 which suggest that Dividend Payout Ratio has no significant impact on the value of the firm. Therefore the null hypothesis is accepted against the alternative hypothesis.

The variable of Leverage (tlbta) showed a significant positive relationship with firm value. This agrees with apriori sign and shows that high leveraged companies has positive firm value. In other words the higher the leverage ratio of the company the greater the value of the firm. This agrees with the study of [52 and 37] negates the findings of [53], Therefore from the findings of this study, hypothesis 4 which suggest that leverage dose not significantly affects firm value is rejected.

Lastly, the result on the forth hypothesis show that there is no significant relationship between firm size and firm value of listed beverages and breweries companies in Nigeria. This is evident from the t-statistics value of (-0.85) and a probability value of (P-0.397). This result negates the findings of [37] and [32]. Furthermore, the result reveals that a one unit increase in total assets of the company will lead to 1.22 unit fall in the value of the company. This is in contradiction to the findings of [44]. However this should not be taken

seriously because the value of the probability (P-value) shows that the impact is insignificant

The test for multicolinearity was carried out before analyzing the regression model. According to [54], this test is necessary because multicolinearity can affect the parameters of a regression model. [55], suggested that a tolerance value less than 0.1 indicates a serious multi-colinearity problem between the dependent variables. Nevertheless since all values are more than 0.10, there is no issue of multicolinearity between the independent variables. Also [56], suggested that a variance inflation factor VIF value greater than 10 calls for concern, however for this study the VIF value is less than 10.

#### SUMMARY OF FINDINGS

This study basically examined the influence of Dividend Payout Ratio on the value of the firm in Nigerian listed companies between 2007 and 2014. This study is rare especially in developing countries such as Nigeria and to the best of my knowledge it has not been studied using companies from the beverages industry in Nigeria. The study adopted the variable of Tobin Q as a proxy for firm value and other explanatory variables of Profit after Tax (patm) Cash Holdings (cashh), Leverage (tlbta) Dividend Payout Ratio (dvpay) and Firm Size (fsize).

The study found out that only the variables of Cash Holdings (Cashh) Leverage (tlbta), and Profit after Tax (patm) are powerful significant factors that tend to drive the value of the firm in both breweries and beverages companies in Nigeria. The Fisher goodness of Fit test passes at 1% level and implies that the model has a goodness of Fit, thus, can be useful for policy recommendations. The R-square (0.95) supported by the adjusted R-square (0.86) implies that all the independent variables put together could explain to a large extent, 86% the degree of systematic variation in the dependent variable of Tobin Q.

#### RECOMMENDATIONS

Corporate managers whose interest is to raise the value of the firm should ensure the maximization of Profit after Tax, and leverage ratio. This will create a positive atmosphere for future investors and a willingness to invest will increase. The study also recommends that since the value of the firm did not receive significant impact from Dividend Pay Ratio, Size and Cash Holding of the company, then investor's interest should be concentrated on firms leverage and profitability policies.

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