International Journal of Economics, Commerce and Management
United Kingdom ISSN 2348 0386 Vol. X, Issue 2, Feb 2022

http://ijecm.co.uk/

DETERMINANTS OF CORPORATE DIVIDEND PAYOUTS IN QUOTED NIGERIAN BREWERY FIRMS

Ebi, Odi R.
Department of Finance and Banking, University of Port Harcourt, Port Harcourt, Nigeria
ebi.odi@uniport.edu.ng

Harry, Fredrick Nkakek
Department of Finance and Banking, University of Port Harcourt, Port Harcourt, Nigeria

Abstract

Motivated by the need to examine the empirical determinants of dividend policy in quoted brewery firms in Nigeria over the period of 1986 to 2019, the study employed secondary data obtained from the annual financial reports of quoted brewery firms, the Nigerian Stock Exchange Fact book, and the Central Bank of Nigeria Statistical Bulletin. The data analysis techniques employed included Stationarity, Johansen Cointegration, error correction, and Granger Causality tests. The study observed a first difference stationarity amongst employed variables and evidence of a significant long run relationship among the variables understudy. In the long run, it was observed that five of the explanatory variables; liquidity, lending rate, inflation rate, present net earnings per share, and debt/equity ratio showed statistically valuable influences on dividend payouts in the brewery sector. In line with the above findings, the study concludes that among the classical dividend policy determinants employed in the study, only liquidity, lending rate, inflation rate, present net earnings per share and debt/equity ratio are statistically important in influencing dividend payouts of quoted brewery firms in Nigeria. Accordingly, brewery firms are recommended to ensure effective management to sustain their liquidities, negotiate strictly, the interest charges they pay on their borrowings from banks in order to minimize their interest costs as well as maximize profitability. Also, they are to ensure that their optimal debt/equity ratios are not exceeded in order to avoid situations where cost of debt would exceed revenues arising from employment of debt and consequently, reduction in net profits.

Keywords: Dividend Policy, Brewery Firms, Dividend Payouts, Pooled Analysis

INTRODUCTION

The brewing sector has continued to hold a strategic position in the economic growth of countries. Recently the annual world beer production was noted to be far more than 1.34 billion hector litres (Food and Agriculture Organization - FAO, 2019). Further, the brewing sector contributes greatly to the gross domestic product of countries such as Ireland, France, Netherland, USA and Germany (Chukwu, 2019). However, in Nigeria despite having a large population which consumes brewery products. Investors in the sector have not been much armed with empirical studies on the sustainable trend of rewards for investment (i.e. dividend) in that sector (Inyiama, Okwo, & Inyiama, 2015). Dividend policy has been a topic of much discussion and has generated enormous concern in recent times from scholars and finance experts (Baker & Weigand, 2015; Farooq, & Ahmed, 2019; Adamu, Ishak, & Hassan, 2020; Adamu, Bala, & Suleiman, 2020). Interest in dividend policy issues arose from traditional finance theory that the motive for investment in shares is driven by dividends as observed by Williams (1938) and Gordon (1959). On the other hand, the proposition by Miller and Modigliani (1961) is that under certain conditions, dividend payment is irrelevant and does not affect a firm's share price. However, several scholars have disagreed with the proposition by Miller and Modigliani (1961), arguing that, their proposition was based on perfect capital market condition which may not be obtainable in the real world (Szenberg, & Ramrattan, 2008; Adamu, Bala, & Suleiman, 2020). Additionally, Tran (2020) opines that, financial managers pay attention to dividend as a result of clientele's increasing pressure on companies to pay dividends. Thus, Kumar (2006) sees dividends as rewards investors gets for providing finance for businesses, while Mbah and Anichebe (2018) define dividend as the share of profit of a firm by a shareholder on a pro rata basis that is determined by number of shares held by a shareholder.

Quite often, financial managers are confronted with the function of distributing profits. They decide either to distribute profits as dividend or retain it for reinvestment (Adamu, Ishak, & Hassan, 2020). Also, financial managers are faced with the decision of choosing which method of dividend payout to be adopted. In today's business world, investors are always concerned on what they stand to gain from the firm as cash or income over a period of time. 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).

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 and others.

However, despite the booming market in the brewery sector, these theoretical factors as indicated above in Weston and Brigam (1986) and Osiegbu (2005) have not been wholly subjected to empirical testing, especially in the light of current data. Given the above, there is an urgent need to examine in the light of current data, the extent to which the results of this study will be consistent with or differ from those of previous studies for policy and academic purposes. The need to resolve the above issues constitute therefore, the core problem of this study.

In light of the aforementioned issues, the study specifically seeks to examine the nature of relationship between Weston and Brigam's (1986) and Osiegbu's (2005) variables such as; firm liquidities, business opportunities in the economy, cost of floating new shares in the Nigerian stock exchange, prevailing inflation rates, present net earnings per share, past dividend payouts, accumulated reserves per share, prevailing lending rates in the economy, debt/equity (leverage) ratios at any point in time, and dividend payout of quoted Nigerian brewery firms. To accomplish its objective, relevant data for the sampled quoted companies were obtained from their annual financial reports, Securities and Exchange Commission Fact book for a 33-year period of 1986 – 2019. The population of interest for this study covers all breweries quoted on The Nigeria Stock Exchange. Presently, there are five actively operational breweries quoted on The Nigerian Stock Exchange. These are: Champion Breweries Plc (which was reactivated recently); Guinness Nigeria Plc; Nigerian Breweries Plc; International Breweries Plc; and Consolidated Breweries Plc (The Nigerian Stock Exchange, 2020). A sample size of two firms (Guinness Nigeria Plc and Nigerian Breweries Plc) was technically adopted in this study since they were quoted earlier while international breweries and consolidated breweries came on stream later. Champion Breweries on the other hand, has just been revamped. As such, the time scope of this study could only be fitted by Nigerian Breweries Plc and Guinness Nigeria Plc and as such, technically constitute the basis for the sample for this study.

A study on how to improve performance of breweries is of utmost importance especially at a time when the brewery sector is undergoing enormous challenges. Thus, this study will be of importance not only to brewing firms but also to financial managers, investors, policy makers, management, and scholars. It will enable these stakeholders understand the factors influencing dividend payout policies and provide a background for them to guide a policy framework regarding their relations to those determinants.

Having provided an overview as above, the study will be rendered in four sections. Section 2 provides a review of key propelling studies while the third section provides the

materials and methods adopted. Section 4 deals with the results obtained and analysis of same, while section 5 offers the discussions, conclusions, and policy recommendations.

LITERATURE REVIEW

Theoretical foundations

This study derives its theoretical strength from the traditional school theories as seen in the studies of John Burr Williams, Gordon, Lintner, etc., followed by the dividend irrelevance theory by Miller and Modigliani (1961), Bird-in-Hand Hypothesis by Bhattacharya, (1979), and the clientele effect theory by Litzenberger and Ramaswamy (1982). These theories are discussed below;

The Traditional School Theories of Dividend

Akujuobi and Nnamdi (2010) summarizes the traditional school of thoughts starting out with the ideology that these school of thought posits that share prices derive from expected dividends among other implicit factors (Walter, 1963; Okafor, 1983). Okafor (1983) traced the beginning of the Earnings – Dividend controversy to John Burr Williams, who had argued that the price or value placed on any cow, hen, or stock, is an implicit function of the value of its milk, eggs or dividends respectively. Following this, Walter (1963) develops a theoretical model to show that the choice of dividend policies affects the value of the firm. His conclusion is that dividends are not weighted differently from retained earnings in the minds of marginal investors such that investors equally partake in future cash flows to the extent that the expected future cash flows are reflected in stock market prices. In a separate but related study, Lintner (1966) concludes that past dividends appear as benchmarks for current dividends. He asserts further that evidence indicates that current dividend payouts of United States firms always have as a reference point, a bearing with past dividends in order to reflect basic corporate interests as well as those of the stockholders (Akujuobi & Nnamdi, 2010).

The Dividend Irrelevance Theory - Miller and Modigliani (1961)

This theory propounded by Miller and Modigliani (1961) believes that payment of dividends and the amount paid are not relevant to or do not affect or determine the prices of shares. They argued that in tax-free world, shareholders are indifferent between dividends and capital gains, and the value of a company is determined solely by the earning power of its assets and investments (Akinsulire, 2014). Simply put, they believe that the dividend policy of a firm does not determine the value of the firm rather, the earning ability of the firm and its investment policy, which are mostly considered for stock valuation. Miller and Modigliani (1961)

demonstrated that under assumptions of a perfect capital market, a world without taxes with rational investors, dividend policy would be irrelevant. Given those assumptions, shareholders 'wealth will not be affected by the dividend decision and therefore investors would be indifferent between dividends and capital gains. They argue that regardless of how the firm distributed its income, its value was determined by its basic earning power and its investment decisions. They also state that given a firm's investment policy, the dividend payout policy it chooses to follow will affect neither the current price of its shares nor the total returns to shareholders. Further they posited that, to an investor, all dividend policies are effectively the same; and that the availability of external financing in a world without information asymmetry or transaction costs makes the value of the firm independent of its dividend policy. In other words, investors calculate the value of companies based on the capitalized value of their future earnings, and this is not affected by whether firms pay dividends or not and how firms set their dividend policies. Miller and Modigliani (1961) go further and suggest that, to an investor, all dividend policies are effectively the same since investors can create "homemade" dividends by adjusting their portfolios in a way that matches their preferences. This type of theory is the basis of modern corporate finance. Miller and Modigliani's irrelevance theory proposes that the value of firms depends on their future and present cash flows and that dividends have no effect on the value of the firm. Importantly, Black and Scholes (1974) have the same view as Miller and Modigliani (1961)

Bird-in-Hand Hypothesis - Bhattacharya (1979)

Bird in the hand hypothesis as propounded by Bhattacharya (1979) states that high dividend increases firm value and its riskiness. This theory states that dividends are related to and have a significant influence on the value of a firm. As the name of the theory can be guessed from the adage, "A bird in hand is worth more than two in the Bush." However, the reason behind investors preferring cash in hand rather than future capital gains is that most investors are risk averse. In this theory, the bush refers to future capital gains and the bird in hand to cash dividends. Furthermore, Gordon (1959) suggests that firms paying dividend are giving the impression of generating a lot of profit and consequently have easy access to capital markets and their valuation is affected by paying dividends. The essence of the bird-in the-hand theory of dividend policy is that shareholders are risk-averse and prefer to receive dividend payments now than future capital gains, (Bhattacharya, 1979).The traditional argument in favour of dividend is the idea that dividends reduce risk because they bring shareholders' cash inflows forward. Although shareholders can create their own dividends by selling part of their holdings, this entails trading costs, which are saved when

the firm pays dividends. Gordon (1963) contends that the payment of current dividends resolves investors' uncertainty in that investors prefer a certain level of income now than the prospect of a high, but less certain income at some time in the future. Also, he concludes that the risk of the firm is determined by the riskiness of the cash flows from its projects. An increase in dividend payout today would result in an equivalent drop in the ex-dividend price of the stock. Bhattacharya (1979) suggests that the reasoning underlying bird in the hand theory is fallacious. He affirms that the firm's risk affects the level of dividend and not the other way round; implying that the riskiness of a firm's cash flow influences its dividend payment but increases in dividends will not reduce the risk of the firm. In financial terms, investors are more eager to invest in the stocks that give current dividend rather than those that disburse dividends in future and retain the earnings.

Clientele Effects Theory - Litzenberger and Ramaswamy (1982)

The theory argues that different investors or shareholders have their own expectations and preferences regarding dividend payout policy. As a consequence, shareholders tend to choose the stocks of firms that satisfy a specific need. This is because shareholders have to encounter with distinct tax treatment for capital gains & dividends and also confront with certain transaction costs as they buy and sell securities in different markets. Miller and Modigliani (1961) assert that to minimize these costs, shareholders will be inclined towards those companies that offer them those expected benefits. Similarly, companies would appeal diverse clientele established on their dividend payout policies. However, they state that while clientele effect might modify a company's dividend payout policy, one clientele is equally commendable as another, thus dividend payout policy remains irrelevant. Nizar Al-Malkawi (2007) asserts that companies in their development phase, which incline to pay lesser dividend would appeal clientele that appeal capital gratitude, however those companies in their maturity phase which disburse greater dividends appeal clientele that need instant revenue in the shape of dividend. Allen, Bernardo and Welch (2000) suggest that clientele such as institutional investors tend to be attracted to invest in dividend-paying stock because they have relative tax advantage over individual investors. These institutions are often subjected to restrictions in institutional charters (such as the prudent man rule), which to some extent prevented them from investing in non-paying or low-dividend stocks. Similarly, good quality firms preferred to attract institutional clientele (by paying dividends) because institutions are better informed than retail investors and possess ability to monitor or detect firm quality

Empirical Review

Labhane and Mahakud (2016) examined the determinants of the dividend policy of Indian firms during the period 1994– 2013 A regression model was used to analyze the panel data for companies that were continuously paying dividend, The empirical results from the panel regression analysis propose that financial leverage, investment opportunity, firm size, business risk, company life cycle, profitability level, liquidity and tax are the main determinants of the dividend policy for Indian companies. The results are consistent with signaling and firm life cycle theories of the dividend policy, the pecking order theory and transaction cost.

Nnamdi and Olulu-Briggs (2015) examined the Bhattacharyya's bird-in-the-hand argument on corporate valuation. Employing yearly share prices, number of outstanding shares and dividend per share of quoted firms, the study supports that a dividend policy increases firm's market value. It therefore recommends that corporates should do more in declaring dividends in order to encourage more trading activities. This will in turn increase investors' appetite for further investments.

Asad and Yousef (2014) examined the impact of company leverage on dividend payment using simple OLS techniques on four manufacturing firms in Pakistan during the period 2006–2011. The results indicate that company leverage had a significant negative effect on dividend payments. Moreover, other variables being used to detect the leverage specific impact on dividend payments revealed that the effect of leverage on the distribution of dividends in the textile and sugar industries performed differently as compared with other sectors. Consequently, the findings of the study support the view that firms' managers should decide the level of leverage and dividend policy by illuminating the interaction between dividend payment patterns and leverage. This in turn guarantees the stability of the equity market.

Alzomaia and Al-Khadhiri (2013) studied the main factors that determine the dividend, which they represent by the dividend per share (DPS) for firms listed on the Saudi Arabian stock exchanges (TASI). A regression model was used to analyze the panel data for the 105 non-financial listed companies over the period 2004–2010. The model examined the impact of the previous dividend (DPS) for the previous year, debt to equity (D/E) ratio, growth, EPS, capital size and beta on DPS. The findings support that the Saudi non-financial listed firms depend on the current EPS and the past DPS of the firm to determine their dividend payments.

Elly and Hellen (2013) investigated relationship between inflation and the dividend payout ratio for the firm listed on the Nairobi Stock Exchange. The study covered the period from 2002 to 2011. The authors collected the data from the Nairobi Stock Exchange. From the analysis of the data the authors concluded that the debt to equity ratio, profitability, market to book value ratio, the current ratio and corporate tax has a positive relationship with dividend

payout ratio; and operating cash flow per share and market to book value has negative relationship with the dividend payout ratio (Rehman & Takumi, 2012).

Nwidobie (2011) used surveys to evaluate the level of satisfaction derived by shareholders of quoted firms in Nigeria. His findings show that dividend payouts of quoted firms in Nigeria were 15% of dividend expectations of Nigerian shareholders; that there exists low level of contentment of shareholders from the current payouts of quoted firms. According to him, the determinants of dividend payouts of the sampled firms did not incorporate socioeconomic and behavioural influences affecting shareholders. He suggests that dividend payout models of quoted firms in Nigeria need to incorporate socio-economic and behavioural factors affecting shareholders; dividend payouts of these firms should be optimized at the point where the marginal savings of agency costs of equity and additional unit of dividend equaled the marginal increase in the agency cost of raising finance by debt.

Hussainey, Mgbame and Mgbame (2011) examined the relationship between dividend policy and share price changes in the UK stock market. Multiple regression analyses was used to explore the association between share price changes and both dividend yield and dividend payout ratio. A positive relationship was found between dividend yield and stock price changes, and a negative relation between dividend payout ratio and stock price changes. In addition, it was shown that a firm's growth rate, debt level, size and earnings explain stock price changes.

Adesola and Okwong (2009) used OLS method and posit that Lintner's model and Bhattacharya's signaling theory (1979) performed well when used for the dividend policy of quoted companies in Nigeria. They observe that average earning, current dividend and earnings per share were significant determinants of average dividend payment with average earnings being the most significant, thus supporting Nyong (1990) and Adesola (2004) earlier results. They also confirm the insignificance of growth prospect and firm size on the dividend behaviour of corporate firms.

According to Musa (2009), five independent variables (current earnings, previous dividend, cash flow, investment and net current assets) were used to show the aggregate impact of the dividend policy of firms in Nigeria. He used 53 quoted firms between 1993 and 2002 and found out that current earnings, previous dividends and cash flow had a significant positive effect on the dividend policy of all the quoted companies, while no statistical evidence of a relationship between investment and the dependent variable was found. His study underscores the need for the Board of directors to control a continuous but gradual increase in earnings, cash flow and dividend payment.

Aregbeyen (2005) examined the determinants of firm's dividend payments in Nigeria with a sample of 60 manufacturing companies quoted on the Nigerian stock exchange between 1993

and 1999. The empirical estimates based on panel data methodology showed that ownership structure, current profits and the lagged dividends are significant explanatory variables of the firms' dividend payment. It posits that the significance of the lagged dividend suggests a trend pattern in dividend payment by the firms and that high dividend payment previously made for a higher dividend payment in the current year.

Various reviewed studies employed varying predictor of dividend policy/payout, but very few summed up the possible determinants of dividend policy in a single model. The study therefore seeks to fill this gap by employing an updated review of the determinant of dividend policy. The study utilized a wider range of predictors such as; liquidity, gross domestic product growth rate, lending rate, cost of floating new shares, inflation rate, present net earnings per share, past dividend payouts and accumulated reserves per share and debt equity ratio. Also, the review of the Brewery industry is rarely carried out, as observed by reviewed literature. This study therefore encompasses the determination of dividend policy in this viable sector.

RESEARCH METHODS

Data Presentation

The study employed pooled time series data which are presented in this section as follows to reflect the numerical trend of employed variables over the study period 1981-2019. The 39 years study period was adopted based on data availability and for better generalization of the findings.

Table 1: Dividend Payout (DPO), Liquidity (LQ), Gross Domestic Product Growth Rate (GDG), Lending Rate (LR), Cost of Floating New Shares (CFS), Inflation Rate (IRF), Present Net Earnings Per Share (PNE), Past Dividend Per Share (PDP), Accumulated Reserves Per Share (ARS) and Debt/Equity Ratio (DER) of Nigerian Brewery Firm over the period of 1986 to 2019.

Year	DPO	LQ	GDG	LR	CFS	IFR	PNE	PDP	ARS	DER
	N	%	%	%	%	%	N		%	%
1986	1.18	1.35	5.29	10.50	2.33	13.67	2.00	1.03	26.99	0.188
1987	1.47	1.23	23.22	17.50	3.89	9.69	2.98	1.18	30.46	0.043
1988	1.76	1.33	28.42	16.50	3.67	61.21	3.98	1.47	34.39	0.067
1989	2.05	0.92	30.86	26.80	5.96	44.67	4.40	1.76	38.83	0.259
1990	2.34	0.90	19.20	25.50	5.67	3.61	4.95	2.05	43.85	0.184
1991	2.63	0.84	19.29	20.01	4.45	22.96	5.08	2.34	49.53	0.731
1992	2.92	0.85	52.64	29.80	6.62	48.80	5.22	2.63	55.96	0.440
1993	3.21	0.77	38.39	18.32	4.07	61.26	6.48	2.92	63.24	0.100
1994	3.22	0.99	40.01	21.00	4.67	76.76	4.64	3.21	71.47	0.055
1995	3.06	1.07	64.24	20.18	4.48	51.59	4.39	3.22	80.80	0.202
1996	3.29	0.89	30.53	19.74	4.39	14.31	3.85	3.06	91.36	0.343

1997	3.46	0.84	8.80	13.54	3.01	10.21	4.89	3.29	134.38	0.537
1998	3.79	0.78	11.61	18.29	4.07	11.91	7.59	3.46	111.85	0.251
1999	1.65	0.70	15.65	21.32	4.74	0.22	5.20	3.79	126.65	0.187
2000	1.99	0.74	29.96	17.98	4.00	14.50	2.96	1.65	200.13	0.021
2001	2.63	0.77	17.93	18.29	4.07	16.50	4.10	1.99	751.86	0.000
2002	2.93	0.59	39.32	24.85	5.52	12.20	3.90	2.63	672.81	0.000
2003	2.93	0.03	17.38	20.71	4.60	23.80	5.66	2.93	1032.46	0.000
2004	2.83	-0.02	30.22	19.18	4.26	10.00	3.69	2.93	195.78	0.108
2005	2.03	0.26	28.57	17.95	3.99	11.60	2.19	2.83	239.22	0.195
2006	2.40	0.06	28.70	17.26	3.84	8.50	3.24	2.03	99.32	0.180
2007	2.77	5.44	15.12	16.94	3.76	6.60	4.88	2.40	122.82	0.177
2008	5.33	-0.20	18.68	15.14	3.36	15.10	5.72	2.77	951.06	0.220
2009	4.65	0.02	13.09	18.99	4.22	12.00	6.43	5.33	1049.89	0.261
2010	4.23	0.07	23.32	17.59	3.91	11.80	6.61	4.65	1219.28	0.254
2011	3.53	0.05	15.32	16.02	3.56	10.30	6.79	4.23	1594.40	0.178
2012	3.83	-0.19	13.87	16.79	3.73	12.00	6.48	3.53	3.26	0.310
2013	3.60	-0.46	11.68	16.72	3.72	8.00	6.03	3.83	1.03	0.122
2014	3.84	-0.29	11.18	16.55	3.68	8.00	5.71	3.60	3.47	0.376
2015	3.31	-0.43	5.73	16.85	3.74	9.60	5.00	3.84	4.98	0.159
2016	2.45	0.28	7.80	16.87	3.75	18.60	1.12	3.31	14.41	0.271
2017	2.07	0.43	12.04	17.58	3.91	15.40	2.72	2.45	18.72	0.397
2018	2.79	-0.05	12.33	16.72	3.72	11.40	2.87	2.07	143.09	0.170
2019	1.93	-0.13	12.90	15.21	3.38	11.98	2.26	2.79	115.99	0.162

Table 1…

Source: Derived from Appendix I

Data were obtained from financial statements of quoted breweries listed in The Nigerian Stock Exchange Fact Book and publications of The Securities and Exchange Commission of Nigeria, as well as Central Bank of Nigeria's Statistical Bulletin over the period 1986 to 2019. The study employed 9 key determinant of dividend policy. For the purpose of clarity, they were operationalized as follows: **Dividend Payout Ratio (DPO)** is captured as the naira value of annual dividend paid to shareholders by the study firms. It is measured in ratio (i.e. cumulative dividend as a ratio to total shares). **Liquidity (LQ)** is adapted as the ratio of the difference between total current asset and current liability to total current liability. **Investment Opportunity/Gross Domestic Product Growth Rate (GDG)** is captured as the rate of change/growth of the nominal gross domestic product in Nigeria over the study period as reported by the Central Bank of Nigeria. **Lending Rate (LR)** is measured using the maximum lending rate provided by banks to fund seekers. **Cost of Floating New Shares (CFS)** is captured by dividing the lending rate by 4.5 which is reportedly the rate in which firms spend in floating new shares. **Inflation Rate (IFR)** is captured as annual values of change in consumer price index/inflation rate as reported by the Central Bank of Nigeria. **Present Net Earnings Per Share (PNE)** is captured as the

ratio of net earnings to shares outstanding by sample firms over the study period. **Past Dividend Per Share (PDP)** is measured using the immediate one year lagged value of Dividend paid per share over the study period. **Accumulated Reserve Per Share (ARS)** is conceived as the ratio of accumulated reserves to outstanding shares in the sampled firm over the study period. **Leverage/Debt to Equity Ratio** is measured using the ratio of Total Debt to Total Equity of employed firms over the study period.

Model Specifications

Going by the proposed determinant of dividend policy in line with Weston and Brigam (1986) and Osiegbu (2005), the study employs the dividend payout predictor such as; liquidity, gross domestic product growth rate, cost of floating new shares, inflation rate, present net earnings per share, past dividend payouts and accumulated reserves per share and debt equity ratio.

Accordingly, the functional model for this study is stated as follows;

$$DPO = f(LQ, GDG, LR, CFS, IFR, PNE, PDP, ARS, DER) \quad (1)$$

For the purpose of estimation, equation (I) is rewritten as follows to accommodate the estimation parameters and error term;

$$DPO_t = \beta_0 + \beta_1 LQ_t + \beta_2 GDG_t + \beta_3 LR_t + \beta_4 CFS_t + \beta_5 IFR_t + \beta_6 PNE_t + \beta_7 PDP_t + \beta_8 ARS_t + \beta_9 DER_t + \pi_t \quad (2)$$

Where;

β_0 = constant term

$\beta_1 - \beta_9$= Coefficient for the explanatory variables LQ to DER, while LQ to DER retain their previous notations.

π_t = Error or stochastic term.

Specification of Analytical Tools and Tests

Various analytical techniques were employed which are presented as follows: Stationarity (Unit Root) Test; Johansen's Co-integration Test; Error Correction; and Granger Causality Test.

RESULTS AND DISCUSSIONS

Presentation of Stationarity Test Results:

The results of the stationarity test conducted on the time series variables are presented in table 2 and 3 below;

Table 2: Results of Unit Root Test (Augmented Dickey Fuller) at level

	ADF T-statistics	Mackinnon's test critical values @			Probability Level	Order of Integration	
Variable	At Level	1%	5%	10%			Decision
DP	-2.792797*	-3.646342	-2.954021	-2.615817	0.0702	0(0)	Not stationary
LQ	--3.330242**	-3.646342	-2.954021	-2.615817	0.0111	0(0)	Not stationary
GDG	-3.415863**	-3.646342	-2.954021	-2.615817	0.0175	0(0)	Not stationary
LR	-3.538597**	-3.699871	-2.976263	-2.627420	0.0120	0(0)	Not stationary
CFS	-3.538340**	-3.646342	-2.954021	-2.615817	0.0117	0(0)	Not stationary
IFR	-2.745859*	-3.646342	-2.954021	-2.615817	0.0773	0(0)	Not stationary
PNE	-2.870877*	-3.646342	-2.954021	-2.615817	0.0597	0(0)	Not stationary
PDP	-2.770162*	-3.646342	-2.954021	-2.615817	0.0735	0(0)	Not stationary
ARS	-2.798463*	-3.646342	-2.954021	-2.615817	0.0694	0(0)	Not stationary
DER	-3.583259*	-3.646342	-2.954021	-2.615817	0.0735	0(0)	Not stationary

Source: Extracts from E-Views 10.0 output

From the stationarity test in the above table 2, an absence of stationarity can be observed. This indicates that none of the study variable is stationary at level, since all the ADF t-statistics are on absolute basis lower than all Mackinnon's test critical values at 1%, 5% and 10% respectively with all their significance levels far lower than 0.05 minimum acceptance level. Due to the insignificance of the study variables at level, the study proceeds to evaluate the stationarity of the employed variables at the first difference. The results are presented below in Table 3.

Table 3: Results of Unit Root Test: (Augmented Dickey Fuller) at First Difference.

	ADF T-statistics	Mackinnon's test critical values @			Probability Level	Order of Integration	
Variable	1st difference	1%	5%	10%			Decision
D(DP)	-5.818336***	-3.653730	-2.957110	-2.617434	0.0000	I(1)	Stationary
D(LQ)	-5.801537***	-3.653730	-2.957110	-2.617434	0.0000	I(1)	Stationary
D(GDG)	-6.124389***	-3.737853	-2.991878	-2.635542	0.0000	I(1)	Stationary
D(LR)	-5.217165***	-3.699871	-2.976263	-2.627420	0.0002	I(1)	Stationary
D(CFS)	-5.217194***	-3.699871	-2.976263	-2.627420	0.0000	I(1)	Stationary
D(IFR)	-4.982705***	-3.679322	-2.967767	-2.622989	0.0004	I(1)	Stationary
D(PNE)	-5.768984***	-3.653730	-2.957110	-2.617434	0.0000	I(1)	Stationary
D(PDP)	-5.649058***	-3.653730	-2.957110	-2.617434	0.0046	I(1)	Stationary
D(ARS)	-6.521764***	-3.653730	-2.957110	-2.617434	0.0000	I(1)	Stationary
D(DER)	-5.135789***	-3.679322	-2.967767	-2.622989	0.0002	I(1)	Stationary

*** sign at 10%, 5% and 1%, ** sign at 10% and 5%.

Source: Extracts from E-Views 10.0 output

In table 3 above, it can be easily observed that all employed variables showed significant stationarity tendencies at first difference. The results therefore confirm absence of any unit root in the time series. To that extent therefore, all the employed variables are confirmed reliable for further estimations with minimal possibility of biases in long run estimations as well as satisfy conditions for employment in Johansen Co-integration analysis. In light of the observe stationarity, the study therefore proceeds to the cointegration test.

Presentation of Johansen Co-integration Test

To evaluate the extent to which a valuable long run relationship prevailed among the employed variables, the study employed the Johansen's cointegration technique. The result of the Johansen's cointegration analysis is presented in table 4 below.

Table 4: Presentation of Johansen Co-integration Analysis

Variables	Trace Test	Max-Eigen Test	0.05 Critical Value	P-value
None *	106.1924	34.30560	95.75366	0.0079
At most 1 *	71.88684	23.00751	69.81889	0.0339
At most 2 *	48.87933	18.07001	47.85613	0.0399
At most 3 *	30.80931	16.06159	29.79707	0.0381
At most 4*	14.74772	9.396911	15.49471	0.0446
At most 5 *	5.350808	5.350808	3.841466	0.0207
At most 6 *	48.69240	20.25371	47.85613	0.0416
At most 7	28.43869	15.02252	29.79707	0.0711
At most 8	13.41617	8.309877	15.49471	0.1004
At most 9	5.106292	5.106292	3.841466	0.0538

Source: E-Views 10.0 output extract

The results of Johansen's Cointegration analysis shown in table 4 above for both Trace and Max-Eigen Statistics indicate seven (7) significant co-integrating equations. The results therefore provides evidence to assert the prevalence of significant long run relationship between dividend payout and its determinants i.e. Liquidity (LQ), Gross Domestic Product Growth Rate (GDG), Lending Rate (LR), Cost of Floating New Shares (CFS), Inflation Rate (IRF), Present Net Earnings Per Share (PNE), Past Dividend Per Share (PDP), Accumulated Reserves Per Share (ARS) and Debt/Equity Ratio (DER) of Nigerian Brewery Firm over the study period.

Presentation of Error Correction Model Estimations

To ascertain the nature of long run dynamics in the study models, the Error Correction Model was employed. The results of the error correction estimation is presented in table 5.

Table 5: Results of Error Correction Estimation

Variable	Coefficient	t-statistic	Prob.
C	0.004930	0.149591	0.8825
D(LQ)	-0.054991	-2.145127	0.0432
D(GDG)	0.001833	0.517433	0.6100
D(LR)	-0.101821	-3.138952	0.0046
D(CFS)	-14.47324	-0.392591	0.6984
D(IFR)	0.073902	2.353487	0.0279
D(PNE)	0.292651	3.372431	0.0027
D(PDP)	0.324968	1.587219	0.1267
D(ARS)	0.042406	1.522661	0.1421
D(DER)	0.111516	4.108848	0.0005
ECM(-1)	-0.291817	-2.854750	0.0092

R-squared	0.619149	Mean dependent var	0.014909
Adjusted R-squared	0.446035	S.D. dependent var	0.250741
S.E. of regression	0.186624	Akaike info criterion	-0.258240
F-statistic	3.576537	Durbin-Watson stat	2.155195
Prob(F-statistic)	0.006066		

Source: E-Views 10.0 output extract

From the results of Error Correction estimations in table 5, it can be observed that after adjusting for short-run distortions, variations in the study's explanatory variables jointly explain 61.91% of variations in Dividend Pay-out Ratio (DPO). The ECM has the expected negative sign and its associated F-statistic value of 3.576537 is significant. It confirms a good line of fit. Further, the Durbin-Watson statistic of 2.155195 is within the acceptable range. The absolute value of the ECM is 29.18%. This implies that 29.18% of the disequilibrium in the Dividend Pay-out Ratio (DPO) is offset by short-run adjustments in the study's explanatory (predictor) variables yearly. The ECM value of 29.18% is also associated with a probability value of 0.0092, which is statistically significant at the 0.05 level.

The results indicate that in the long run, liquidity ratio (LQ), lending rate (LR), Inflation Rate (IFR), Present net earnings per share (PNE), and the Leverage ratio (DER) have valuable and significant influences on Dividend Payout ratio.

Pairwise Granger Causality Estimation

To ascertain the extent to which the employed variable of this study support, promote and/or re-inforce themselves, this study executed the pair-wise Granger causality tests. The result is shown below as follows:

Table 6: Results for Pairwise Granger Causality Test Estimation.

Pairwise Granger Causality Tests
Date: 01/18/21 Time: 08:47
Sample: 1986 2019
Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
D(LQ) does not Granger Cause D(DP)	31	8.14735	0.0018
D(DP) does not Granger Cause D(LQ)		3.73024	0.0376
D(GDG) does not Granger Cause D(DP)	31	1.20495	0.3159
D(DP) does not Granger Cause D(GDG)		1.42309	0.2591
D(LR) does not Granger Cause D(DP)	31	5.39812	0.0156
D(DP) does not Granger Cause D(LR)		0.74082	0.4865
D(CFS) does not Granger Cause D(DP)	31	0.40370	0.6720
D(DP) does not Granger Cause D(CFS)		0.73682	0.4884
D(IFR) does not Granger Cause D(DP)	31	5.01332	0.0268
D(DP) does not Granger Cause D(IFR)		0.39432	0.6781
D(PNE) does not Granger Cause D(DP)	31	4.98306	0.0376
D(DP) does not Granger Cause D(PNE)		1.90483	0.1690
D(PDP) does not Granger Cause D(DP)	31	0.48621	0.1093
D(DP) does not Granger Cause D(PDP)		0.75591	0.0936
D(ARS) does not Granger Cause D(DP)	31	0.53823	0.5901
D(DP) does not Granger Cause D(ARS)		0.67968	0.5156
D(DER) does not Granger Cause D(DP)	31	5.54482	0.0064
D(DP) does not Granger Cause D(DER)		0.20324	0.8174

Source: E-Views 10.0 output extract

The results of Pairwise Granger Causality shown in table 6 above indicate one bidirectional causal relationship between Liquidity Ratio and Dividend Payout ratio. This shows that, changes in liquidity ratio/position of brewery firms reinforces and promotes changes in dividend payout ratio, and also, changes in dividend payout ratio affects and reinforces changes in the liquidity ratio of beverage firms.

Four significant unidirectional relationships from (i) Lending rate to Dividend Payout ratio, (ii) Inflation rate to dividend payout ratio, (iii) Present earnings per share to dividend payout ratio, and (iv) from leverage (i.e. debt to equity ratio) to dividend payout ratio. To this extent, it implies that changes in the interest/lending rate, inflation rate, present earnings per

share of firms, and leverage of firms reinforces and boosts the payout ratio of brewery firms in Nigeria.

The findings of the study are discussed as follows.

Liquidity (LQ): Displays a negative and significant influence on Dividend Payout in the brewery industry. This is also purported by the bidirectional causal relationship between liquidity ratio and the Dividend payout ratio. This shows that an increase in liquidity reduces the level of dividend payout. This goes against the apriori expectation as Firms with adequate liquidity are more likely to pay higher dividends than firms with lower liquidity. This could therefore point to improper liquidity management in the brewery firms. This can, in turn, affect the company's business operations and effectiveness and its ability to pay dividends as goes against findings by Meidiawati and Meldawati (2016) and Eljelly (2004).

Gross Domestic Product Growth Rate (GDG): shows a positive but insignificant influence on Dividend Payout in selected brewery firms. No causal relationship is observed between Gross Domestic Product Growth Rate and the Dividend payout ratio. The insignificant influence of GDG shows the level of growing investment oppurtunities do not translate significantly to higher dividend payment. This could be linked to the study by Fama and French (2001), documented that newly listed firms with high growth opportunities refrained from making dividend payments.

Lending Rate (LR): Displays a negative but significant influence on Dividend Payout in selected brewery firms. A unidirectional relationship is observed flowing from the lending rate to the Dividend payout ratio. This therefore shows that higher interest rate discourages firms from taking cash loans to pay dividend as observed by Brunnermeier and Koby (2016).

Cost of Floating New Shares (CFS): can be seen to manifest a negative and insignificant influence on Dividend Payout in the brewery industry. No causal relationship is observed between Cost of Floating New Shares and the Dividend payout ratio. This shows that, despite the adverse effect of floatation cost on the liquidity of a firm, they do not valuably affect dividend payout decision as observed by Easterbrook (1984).

Inflation Rate (IRF): manifests a positive and significant influence on Dividend Payout in selected brewery firms. A unidirectional relationship is observed flowing from the inflation rate to the Dividend payout ratio. This shows that, higher inflation has resulted in higher dividend payout. This could be as a result of brewery firms trying to satisfy investors by raising the reported level of dividend payment Elly and Hellen (2013).

Present Net Earnings per Share (PNE): shows a positive but significant influence on Dividend Payout in selected brewery firms. A unidirectional relationship is observed flowing from the Present Net Earnings per Share to the Dividend payout ratio. This tallies with the apriori

expectation since earnings per share is a gauge of how profitable a company is per share of its stock. Dividends per share, on the other hand, measures the portion of a company's earnings that is paid out to shareholders and matches the findings of Consler, Lepak, and Havranek (2011).

Past Dividend per Share (PDP): displays a positive but insignificant influence on Dividend Payout in selected brewery firms. No causal relationship is observed between Past Dividend per Share and the Dividend payout ratio. This insignificance could be linked to instability in dividend payment and exigencies in which companies may reduce dividends to conserve cash to reinvest in the company or buy back stock (Koch & Sun, 2004).

Accumulated Reserves Per Share (ARS): can be seen to have a positive and insignificant influence on Dividend Payout in selected brewery firms. No causal relationship is observed between Accumulated Reserves per share and the Dividend payout ratio. This goes against the apriori and the findings of Shao, Kwok, and Guedhami (2010).

Debt/Equity Ratio i.e. Leverage (DER): shows a positive and significant influence on Dividend Payout in selected brewery firms. A unidirectional relationship is observed flowing from the Debt/Equity Ratio i.e. Leverage to the Dividend payout ratio. This shows that higher leverage results in higher dividend payouts. This goes in line with findings of Mollah (2011) found a direct relationship between financial leverage and debt-burden level that increases transaction costs. This is so because Debt financing usually has less risk and consequently may be available at a lower cost to the borrower and offers tax advantages as interest payments are expenses of the company and are allowable for tax deductions as compared to dividend distributions which are not allowable for tax deductions.

The findings of this study goes against the Lindbergh (1966) findings in which past dividend determine current dividend and kicks against the irrelevance argument of Miller and Modigliani (1961) which proposes no causality relationship between dividend payout and firm operations. Although, the findings bear credence to the study by Walter (1963) who specified that dividend payment is affected by the value of the firm.

CONCLUSION

From the results of this study, the following conclusions were arrived at; First, only five employed determinants that is Liquidity (LQ), Lending Rate (LR), Inflation Rate (IRF), Present Net Earnings per Share (PNE), and Debt/Equity Ratio (DER) show valuable influence on dividend payout in the brewery firms. On an individual basis, the study concludes that; there is a significant relationship between the dividend payouts of quoted brewery firms in Nigeria and their liquidity positions. In all, we conclude that dividend payouts of quoted Nigerian brewery

firms are not significantly a function of business growth opportunities in the economy. Dividend payouts of quoted brewery firms in Nigeria are not significantly related to the cost per unit of floating new shares in the Nigerian stock exchange. It therefore concludes that inflation rates in Nigeria valuably influence dividend payouts of quoted brewery firms. Also, dividend payouts of quoted Nigerian brewery firms are significantly related to their present net earnings. Present dividend payouts of quoted Nigerian brewery firms do not constitute a significant function of their past dividend payouts. In addition, there is no significant relationship between the dividend payouts of quoted Nigerian brewery firms and their accumulated reserves per share. There is a significant relationship between dividend payouts of Nigerian brewery and the prevailing bank lending rates in the country. Dividend payouts of Nigerian brewery firms is a significant function of their debt/equity (leverage) ratios.

RECOMMENDATIONS

In accordance with the results of this study, the following recommendations are made;

i) Reform in the internal financial system of Breweries: The study recommend that firms should restructure operations towards maximizing earnings and curtailing firms' leverage which is observably inconsistent.
ii) Management Efficiency: The study recommends that the management of the quoted brewery firms should be efficient and effective to achieve increase profitability of the industry.
iii) Consistency in Dividend policy: There should be consistent dividend policy that will maximize shareholders wealth without mortgaging the profitability objectives of the firms.
iv) in terms of corporate dividend, Organizations should effectively appropriate fund available to them and manage it in such a way that more profit can be generated which will in turn lead to increase in the shareholders' Wealth maximization. Secondly, adequate monitoring and supervision should be embarked upon by the firm to ensure prudency and proper accountability.
v) And Lastly, although firms should compensate shareholders with dividend, this should be done semi-niggardly so as not to compromise profitability and reduce retained earnings.
vi) At last, further research work can be conducted using the same independent variables in other areas like the food and beverage sector or any other sectors that is of great significance to the Nigerian economy.

REFERENCES

Adamu, A. I., Bala, H., & Suleiman, N. (2020). Dividend policy and political uncertainty: Does firm maturity matter?. *Jurnal Dinamika Akuntansi dan Bisnis*, 7(2), 139-150

Adamu, A. I., Ishak, R., & Hassan, N. L. (2020). Decision to pay dividends and ownership structures in Nigeria. *The International Journal of Banking and Finance*, 14, 27-44.

Adelegan, O. J. (2003). An empirical analysis of the relationship between dividend changes and cash flow in Nigeria. *African Development Review*, 15(2), 35-49.

Adesola, W. A. & Okwong, A. E. (2009). An empirical study of dividend policy of quoted companies in Nigeria. *Global Journal of Social Sciences*, 8(1), 85-101.

Adesola, W. A. (2004). *An empirical study of dividend policy of quoted firms in Nigeria*, an unpublished M. Sc dissertation, University of Calabar.

Adnyana, I.G. & Badjra, I. B. (2014). PengaruhLikuiditas, ManajemenAktifa, EPS, dan Ukuran Perusahaan terhadapKebijakan Dividend dan Nilai Perusahaan. *E-Jurnal Manajemen,* 3(12), 34-43.

Akujuobi, A. B. C., & Nnamdi, I. S. (2010). Earnings-Dividend Relationship in Corporate Nigeria; A Test of Predictive Efficacy. *African Research Review*, *4*(4), 573 – 584.

Allen, F., Bernardo, A. & Welch, I. (2000). A theory of dividends based on tax clientele. *The Journal of Finance*. 55(3), 45-51.

Alzomaia, S. F. & Al-Khadhiri, A. (2013). Determination of dividend policy: The evidence from Saudi Arabia. *International Journal of Business and Social Science,* 4(1), 23-45.

Aregbeyen, O. (2005). The determinants of firms' dividend payments in Nigeria. *International Journal of Business and Common Market Studies*, 3(1), 35-43.

Asad, M., Yousef, S. (2014), Impact of leverage on dividend payment behavior of Pakistani manufacturing firms. *International Journal of Innovation and Applied Studies,* 6(2), 216-21.

Baker, H. K., & Weigand, R. (2015). Corporate dividend policy revisited. *Managerial Finance,* 41(2), 126–144.

Bhattacharya, S. (1979). Imperfect information, dividend policy and ‗the Bird in the hand' fallacy. *Bell Journal of Economics*, 10(2), 259-270.

Black, F. & Scholes, M. S. (1974). The effects of dividend yield and dividend policy on common stock prices and returns. *Journal of Financial Economics*, 1(2), 1-22.

Brunnermeier, M. K., & Koby, Y. (2016). The reversal interest rate: An effective lower bound on monetary policy. *unpublished paper, Princeton University*.

Chen, D. H., Liu, H. H., & Huang, C. T. (2009). The announcement effect of cash dividend changes on share prices: An empirical analysis of China. *Chinese Economy*, *42*(1), 62-85.

Chukwu, B. A. (2019). The influence of staff promotion on employee turnover intention in food and beverage industry in Nigeria. *Journal of Asian Business Strategy*, *9*(2), 66.

Easterbrook, F. H. (1984). Two agency-cost explanations of dividends. *The American economic review*, *74*(4), 650-659.

Eljelly, A. M. (2004). Liquidity-profitability tradeoff: An empirical investigation in an emerging market. *International journal of commerce and management*.

Elly, O. D., & Hellen, K. W. (2013). Relationship between inflation and dividend payout for companies listed at the Nairobi Securities Exchange. *International Journal of Education and Research*, *1*(6), 1-8.

Fama E. F. & French, K. (2001). Disappearing dividends: Changing firm characteristics of lower propensity to pay? *Journal of Financial Economics*, 60(2), 30-43.

Farooq, O., & Ahmed, N. (2019). Dividend policy and political uncertainty: Evidence from the US presidential elections. *Research in International Business and Finance*, 48, 201-209.

Food and Agricultural Organization (2019). Commentary on challenges to taking a food systems approach within the food and agriculture organization (FAO). In *Food Security and Land Use Change under Conditions of Climatic Variability* (pp. 19-31). Springer, Cham.

Gordon, M. J. (1959). Dividends, earnings and stock prices. *Review of Economics and Statistics*, 5(6), 99-105.

Hussainey K, Oscar-Mgbame C, &Chijoke-Mgbame A. M. (2011). Dividend policy and share price volatility: UK evidence. *The Journal of Risk finance*. 12(1), 57-68.

Inanga, E. L, Soyode, A. &Uzoaga, O. (1975). Dividend policy in an era of indigenization: Comment. *Nigerian Journal of Economics and Social Studies*, 17(2),133-162.

Inyiama, E. C., Okwo, M. I., & Inyiama, O. I. (2015). Dividend Payout Policy Determinants of Selected Listed Brewery Firms in Nigeria: A Meta-Analysis (2000–2013). *European Journal of Business, Economics and Accountancy*, *3*(3), 101-118.

Koch, A. S., & Sun, A. X. (2004). Dividend changes and the persistence of past earnings changes. *The Journal of Finance*, *59*(5), 2093-2116.

Kumar, J. (2006). Ownership structure and dividend payout policy in India. *Corporate Governance and Dividend Payout in India, Journal of Emerging Market Finance*, *5*(1), 15-58.

Labhane, N. B., &Mahakud, J. (2016). Determinants of dividend policy of Indian companies: *A panel data analysis. Paradigm*, 20(1), 36–55.

Lintner, J. (1956). Distribution of incomes of corporations among dividends, retained earnings, and taxes. *The American economic review*, *46*(2), 97-113.

Litzenberger, R., & Ramaswamy, K. (1982). The Effects of Dividends on Common Stock Prices Tax Effects or Information Effects? *The Journal of Finance, 37*(2), 429-443.

Mbah, A. N., & Anichebe, A. S. (2018). Effect of dividend payout on market value of selected brewery firms in Nigeria. *IIARD International Journal of Economics and Business Management*, 4(6), 75-86.

Meidiawati, K., &Mildawati, T. (2016). Pengaruh Size, Growth ,Profitabilitas , Struktur Modal , *KebijakanDividenTerhadap Nilai Perusahaan*, 5.

Miller, M., & Modigliani, F. (1961). Dividend policy, growth and valuation of shares. *Journal of Business*, 34(4), 411-435.

Mollah, Sabur. (2011). Do Emerging Market Firms Follow Different Dividend Policies? Empirical Investigation on the Pre and Post Reform Dividend Policy and Behaviour of Dhaka Stock Exchange Listed Firms. *Studies in Economics and Finance.* 28. 118-135.

Musa, F. I. (2009). The dividend policy of firms quoted on the Nigerian stock exchange: An empirical analysis, *African Journal of Business and Management*, 10(3): 545- 566.

Nizar Al-Malkawi H-A. (2007) Determinants of corporate dividend policy in Jordan: an application of the Tobit model. *Journal of Economic and Administrative Sciences* 23(2):44-70.

Nwidobie, M. B. (2011). Dividend payouts and shareholders' satisfaction in quoted firms in Nigeria. *European Journal of Social Sciences*, 22(4): 20-34.

Nnamdi, I. S. & Olulu-Briggs, O.V (2015). Corporate valuation within the Nigerian environment: A re-examination of Bhattacharyya's bird-in-the-hand argument. *Hezekiah University Journal of Management & Social Sciences, 3*(1), 268-281.

Nyong, M. O. (1990). *Dividend policy of quoted companies*: A behavioural approach using recent data, Manuscript. Department of Economics, Lagos State University.

Osiegbu, P. I. (2005). Financial Management. *Port-Harcourt: Harey Publications Company, 183-187*.

Shao, L., Kwok, C. C., & Guedhami, O. (2010). National culture and dividend policy. *Journal of International Business Studies*, *41*(8), 1391-1414.

Szenberg, M., & Ramrattan, L. (2008) Modigliani and Miller's (M&M) hypothesis. In: Franco Modigliani. *Great Thinkers in Economics Series*. Palgrave Macmillan, London.

Tran, D. V. (2020). Economic policy uncertainty and bank dividend policy. *International Review of Economics*, 67, 339–361.

Uzoaga, W. O., & Alozienwa, J. U. (1974). Dividend policy in an era of indigenization. *The Nigerian Journal of Economic and Social Studies*, *16*(3), 461-477.

Weston, J. F., & Brigham, E. F. (1980). Managerial Finance. Hinsdale. Illinois: The Dryden Press. 674-677.

Williams, J. B. (1938). *The theory of investment value*. Cambridge Mass: Harvard University Press.