Journal of Economics and Management Sciences: Volume 5, No. 2; 2020
ISSN: 2550-732X
Published by Department of Economics, Federal University of Lafia, Nasarawa State, Nigeria

Determinants of Dividend Policy of Listed Consumer Goods Companies in Nigeria

Mohammed Bamanga Bello [1] & Tirimisiyu Kunle Lasisi [1]
[1]Department of Accounting, Federal University of Lafia, Lafia, Nasarawa State, Nigeria.
Corresponding Email: bellomohammed36@gmail.com

Abstract
This study examined the determinants of dividend policy of listed consumer goods firms in Nigeria. Ex-post facto research design was employed on a sample of nine (9) listed consumer goods firms in Nigeria for a period of five (5) years (2015-2019). Ordinary Pool Regression technique was used in the analysis of the panel secondary data extracted from annual reports of sample listed consumer goods for a five-year study period (2015-2019). The study found that business risk has significant positive impact on dividend policy of listed consumer goods firms in Nigeria. The study also found that life cycle has significant positive influence on dividend policy. In addition, the study found that tangibility has a negative significant effect on dividend policy of listed consumer goods firms in Nigeria. The study, therefore, recommends that the managers should consider the major determinants of dividend payout ratio while formulating the appropriate dividend policy for a firm. Considering the nature of the companies on the basis of payment of dividends the investors can choose the companies for better investment.
Keywords: Tangibility, Dividend Policy, Business Risk, Life Cycle, Organisation

1.0 Introduction

Investors invest their money with the hope to have returns that could improve their welfare in future. Dividend is one of those expectations that investors hope to get as a result of their investment. A company pays dividend in order to encourage further investment for growth. However, the degree and extent by which dividend is made depend on the organization management decision. While making this decision the management considers available investment opportunities that would increase future earnings and if such opportunities are not available the management should distribute the earnings to shareholders (Miller & Modigliani, 1961). There has been contradicting arguments on firm's dividend payout ratio such as rightist, leftist and the middle of the road hypothesis on whether firms should pay dividend or not (Maude, Jimoh & Okpanachi, 2015).

Dividend payout has always been a debatable subject in corporate finance. Many researchers in past have come up with theoretical models explaining what factors managers should consider while making a dividend decision. The traditional view of the dividend decision states that at a particular time the amount of cash paid today as dividend is more valuable than the retained cash. The traditional view argues that paying early dividends may not change the corporation risk level but it will change the perception of the investor about the corporation's risk level thus dividends are more valuable than retained earnings (Rehman & Takumi, 2012).

The "Dividend Puzzle" as referred by Fischer (1976) fascinated many academicians and researchers resulting in the advent of a number of hypothetical clarifications for dividend policy. This stipulated much debates among financial analysts. However, even after substantial amount of research, there is no similar response to the question: what are the determinants of the dividend policy? Therefore, this study regards the determinants of the dividend policy of listed consumer goods companies on the Nigeria Stock Exchange.

There are a number of empirical studies which examined the determinants of dividend policy; however, the results are mixed. There is no consensus in the literature on the factors that determine the dividend policy (Soondur, Maunick, & Sewak, 2016; Hossain, 2016; Kuzucu, 2015; Labhane & Mahakud, 2016). Like other countries, a number of studies have been conducted on the factors influencing dividend policy in Nigeria. These are the works of Abdulkadir, Abdullah and Wong (2016) who examined foreign ownership, firm size, profitability, cash flows, leverage and previous year's dividend as determinants of dividend policy of listed companies in Nigeria. Olowe, and Moyosore (2008); Bassey, Atairet and Asinya (2014) also tested corporate tax, loan deposit ratio, profitability, capital adequacy, earnings per share, previous year's dividend, liquidity ratio, inflation rate, lending rate as determinants of dividend policy of selected commercial banks in Nigeria.

Also, Adesola and Okwong (2009) who carried out empirical study on dividend policy of quoted companies in Nigeria examined earning per share, debt, equity, stock price, profitability and previous year's dividend as factors influencing dividend policy. Oloidi and Adeyeye (2014); Maude et al., (2015); Zayol, Mya and Muolozie (2017) assessed profitability, firm size, liquidity, leverage, earnings per share, share price, inflation, previous year's dividend and investment as determinable factors on dividend policy in Nigeria. Although reasonable research efforts have gone into determinants of dividend policy in Nigeria, to the best of researcher's knowledge, there is a dearth of study that examined the effect of factors like business risk, life cycle, and tangibility of assets. Therefore, this study attempts to fill this gap by examining the influence of business risk, life cycle, and tangibility of assets on dividend policy of listed Consumer Goods companies in Nigeria.

2.0 Literature Review

2.1 Hypotheses Development

2.1.1 Business Risk and Dividend Policy

Business risks are inherent in the company's operations. Business risk arises from the uncertainty of operating income and capital requirements (Surasmi, Widari, Warmana & Widnyana, 2019). The effect of business risk on dividend policy is not only assessed from dividend theories, but also from capital structure theories, because dividend policy is related to capital structure. Based on tax preference theory, for tax reasons, shareholders prefer reinvestment to company growth rather than dividend distribution. Based on this theory, investors prefer dividend payments when the company does not have a profitable investment opportunity or when not taking investment opportunities because it is too risky. Based on bird in the hand theory, investors prefer dividends because the risk is considered lower than capital gains.

The implication of this theory is that investors prefer dividends when they see a risk in the investment choices of the company. Investors are willing to pay a premium for

stable dividends because first, there is information content in dividends about the company's prospects, secondly there are groups of investors who want dividends as a source of income, and thirdly institutional investors such as pension funds, savings banks, trustees, insurance companies, and certain institutions others can invest in companies with stable dividends (Horne & Wachowicz, 2008). Based on this, companies that face high risk will keep dividend rates low in order to be able to maintain these dividend rates in the future. But maintaining the dividend level allows companies to change their payout ratio policy without changing the value of the rupiah paid per share. Based on trade-off theory, business risk will lead to lower financial leverage in order to avoid a decline in the value of the company due to financial distress. The implication of trade-off theory is that business risk will cause companies to use equity, thereby reducing dividends. Based on pecking order theory, business risk will reduce debt capacity so that it will use internal sources to fund investment. The implication of the pecking order theory is that business risk will reduce dividends. Previous research found that other types of risk negatively affect dividend policy. Political risk has a negative effect on dividend policy Huang, Wu, Yu & Zhang (2015). Market risk has a negative effect on dividend policy, this shows that risk factors prevent companies from getting funding sources in the form of debt so they must rely on internal sources of funds by holding back the profits generated (D'Souza & Saxena, 1999).

2.1.2 Life Cycle and Dividend Policy

The life cycle theory proposed by Mueller (1972) states that each firm has a well-defined life cycle, and the payment of dividends varies across the different cycle of the firm. The mature firms have fewer investment opportunities, more accumulated profits and retained earnings which cause them to pay more dividends and in contrast to this, younger firms have new growth opportunities and need to build reserves of profit to finance its growth opportunities that result in less dividend payment.

2.1.3 Tangibility of Assets and Dividend Policy

The agency problem may also arise between the bondholders and shareholders. The higher proportion of tangible or collateralizable assets ensures higher level of protection for the bondholders thereby reducing the agency problem arising due to the conflicts between the bondholders and shareholders. The tangibility of asset has been measured as the fixed assets divided by total assets, and a positive relationship has been hypothesised between tangibility and the dividend payout ratio (Labhane & Mahakud, 2016).

2.2 Theoretical Framework

There are several theories that explain the dividend policy in the literature of accounting but this study adopts agency theory as most relevant theory.

2.2.1 Agency Theory

Agency theory is one of the most vital theories in dividend policy. Jensen and Meckling (1976) define the agency relationship as "a contract under which one or more persons (the principal(s)) engage another person (the agent) to perform some service on their behalf which involves delegating some decision making authority to the agent." The core of the agency cost theory is the conflict of interest of the managers and shareholders. The concern of the investors is to ensure that their funds are not expropriated or wasted by

the managers on unsuccessful projects (Shleifer, Andrei & Robert, 1997). Easterbrook (1984) suggested suggests that one way of solving this problem is by increasing the payout ratio. When the firm increases its dividend payment, assuming it wishes to proceed with planned investment, it is forced to go to the capital market to raise additional finance. This induces monitoring by potential investors of the firm and its management, thus reducing agency problems. Al-Najjar and Hussainey (2009) found that the conflict of interest between managers and investors may be reduced by paying dividends to shareholders.

The author discovered that listed consumer goods firms in Nigeria pay dividend to their shareholders in order to increase profitability. As a result, management could be seen as paying out dividends to shareholders as a way to signal good performance and be perceived in good faith. Meanwhile, it is also imperative to note that non-payment of dividends may be seen by shareholders and other stakeholders as signalling adverse effect of economic activities of the firm on its performance, Rozeff (1982). Moreso, the listed consumer goods firms in Nigeria were encouraged to inject fresh funds to boost their capital base, not only aimed at increasing stakeholders' confidence, but to be able to support huge capital projects that will translate into meaningful economic growth and development. Expectedly, this exercise was meant to lead to increased productivity and higher returns for the shareholders of firms in Nigeria (Aregbeyen & Olufemi, 2011).

2.3 Empirical Review

Surasmi et al. (2019) researched the effect of business risk on dividend policy on manufacturing companies listed on the Indonesia Stock Exchange. The study employs two ways to measure business risk, namely the variance in the ratio of operating income to total assets, and the degree of operating leverage. The company size, financial leverage, profitability and growth opportunities are included as control variables in the model. Samples of 109 manufacturing companies on the Indonesia Stock Exchange were observed during the 2013- 2017 period. The study uses multiple regression for data analysis. The study results reveal that business risk as measured by variance of operating profit divided by total assets has a significant negative effect on dividend policy.

Jaara, Alashhab and Jaara (2018) examined the determinant of dividend policy for a sample of non-financial companies in Jordan over the period 2005–2016. This study concentrates on some variables that effect the dividend pay-out ratio and the dividend yield such as: Company size, risk, investment opportunities, historical dividend, profitability and leverage. This study used the panel dataset of non-financial companies in Jordan. The results show that company size showed significant positive impact, which could solve the free cash flow problem, mature and large companies were paying more and consistent dividends. The return on equity was positive and significant, that firms with high profitability were paying larger consistent dividend pay-outs. The impact of historical dividends always positive and significant and signposts that firms trend of dividend payout rather than the random paying. Risk has a negative impact on the payout levels

Zayol et. al. (2017) evaluated the determinants of dividend policy of petroleum firms in Nigeria. The extent to which profitability, firm size, liquidity and leverage affects the dividend payout of petroleum firms in Nigeria triggered this research work. The data was obtained from nine petroleum firms in Nigeria from 2011-2014. Data were analysed using descriptive statistics, correlations and regression analysis. Findings from the study revealed that firm size, liquidity and leverage does not affect the dividend policy of

petroleum firms in Nigeria, while profitability was found to affect the dividend policy of petroleum firms in Nigeria.

Labhane and Mahakud (2016) analysed the trends and the determinants of the dividend policy of Indian companies that were continuously paying dividend during the whole period study that is from 1994–1995 to 2012–2013. The study used the static panel data models to carry out this analysis. The findings from the panel data analysis revealed that investment opportunity, financial leverage, size of the company, business risk, firm life cycle, profitability, tax and liquidity are the major determinants of the dividend policy for Indian companies.

Abdulkadir et al. (2016) examined the possible factors that influence dividend pay-out within the Nigerian context. Based on a sample of 126 firms over 10 years (2003–2012) period, the study found evidence of a decline in the number of dividend payers from the descriptive analysis. The results from panel logistic regression suggested that the decline in the number of dividend payers and downward trend in amount paid in the later years is due to an increase in the level of foreign ownership. Further tests revealed that foreign ownership is robust to the use of alternative measure of dividend policy. The study found that foreign ownership, past dividend and interest rate are the most important determinants of dividend payout policies on the Nigerian Stock Exchange.

Soondur et al. (2016) examined the determinants of dividend policy of companies listed on the Stock Exchange of Mauritius. A sample of 30 companies were selected and analysed from the Stock Exchange of Mauritius using the regression analysis. The fixed and the random effect model were conducted to determine the effects of earnings per share, net income, retained earnings, cash and debt to equity on the dividend policy of the listed companies operating in the Mauritian Stock Exchange and for this purpose; companies' annual reports for the period 2009-2013 were used. Moreover, two measures of the dividend policy were considered namely the dividend per share and the dividend pay-out ratio. The study also attempted to provide a comparison between the dividends policies of companies listed on the official market with that listed on the DEM. The findings show there is a significant negative relationship between companies‟ dividend policy and their retained earnings. Furthermore, the results indicate that there is no meaningful connection between the dividend policy and a company's cash and debt to equity ratio.

Hosain (2016) investigated the determinants of dividend payout policy of the listed private commercial banks in Bangladesh. In this study, eight variables are considered as determinants of dividend payout policy. Both pooled ordinary least square (POLS) and dynamic panel regression model were run on a sample of five listed private commercial banks of Dhaka Stock Exchange Limited in Bangladesh for the period of eleven years from 2005 to 2015. While testing the impact of the eight independent variables on the dividend payout ratio, we concluded that only five can explain the dividend policy. Fixed effect regression model was chosen to test the relationship between dividend determinants and dividend payout. The results show that dividend payout ratio are positively and significantly affected by liquidity, firm growth, previous year's dividends but are negatively affected by leverage and profitability. Firm size, firm risk and ownership structure do not have a direct influence on the dividend payments. Thus, Leverage, liquidity, firm growth, previous year's dividends, and profitability are functioning as the key determinants of dividend payout of the listed private commercial banks in Bangladesh.

Kuzuku (2015) studied the firm-level factors influencing the dividend decisions of firms from an emerging market. The study examined eight-year panel data for the period

from 2006 to 2013 from the Turkish stock market (Borsa Istanbul). The results showed that financial leverage, size, growth rate, age, profitability, ownership structure and P/E ratio are statistically significant. The relationship of leverage, growth rate, profitability and family control with dividends is negative, whereas the relationship of size, age and P/E ratio is positive. Therefore, firms with higher debt ratios / growth rates / higher earnings are likely to retain more of their earnings.

Maude et al. (2015) investigated dividend payout pattern in Nigeria deposit money banks. The study relies majorly on secondary data sourced from the financial report of seven (7) quoted banks in the Nigeria Stock Exchange. It was found that all the explanatory variables (inflation, share price and earnings per share) have significant impact on dividend payout.

Inyiama, Okwo and Oliver (2015) examined dividend payout policy determinants of selected brewery firms in Nigeria. The research made use of secondary data obtained from annual report and accounts of the two market leaders in the sector, Nigeria Breweries Plc and Guinness Nigeria Plc, from year 2000 to 2013. The nature and magnitude of association between the dependent variable (DPS) and the independent variables were determined using the multiple regression model. Dividend per Share (DPS) was found to be positively and significantly influenced by Earnings Per Share (EPS) and Market Price of Equity Shares (MPS), while Net Asset Value Per Share (NAVPS) and Total Assets (TA) exert a negative but insignificant influence on DPS. Retained Earnings (RETN) has a positive but insignificant effect on DPS.

Bassey et al (2014) examined determinants of dividend payout of selected Commercial Banks in Nigeria. Secondary data collected from 1989-2010 were analysed using the Ordinary Least Squares (OLS) regression technique. The findings revealed that while current earnings, lagged dividend and lending rate were the major determinants of cash dividend payout in these banks, Inflation rate and liquidity ratio failed to explain the variation in dividend payout.

Oloidi and Adeyeye (2014) examined the variables determining dividend per share (DPS) in some selected companies listed on the Nigerian Stock Exchange (NSE). Methodology: The sample consists of 80 companies listed on the NSE as at 2012. The relevant explanatory variables were subjected to multiple regression analysis. Findings: Results revealed that current year earnings per share and previous year dividend per share were both positively significant at one per cent. Dividend pay-out ratio was significant at five per cent. Both profitability and investment were significant at 10 per cent, but was negatively significant.

Uwuigbe (2014) investigated the determinants of dividends policy in the Nigerian stock exchange market. To achieve the objectives of this study, a total of 50 listed firms in the Nigerian stock exchange market were selected and analysed for the study using the judgmental sampling technique. Also, the corporate annual reports for the period 2006-2011 were used for the study. The paper was basically modelled to examine the effects of financial performance of firms, firm size, financial leverage and board independence on the dividend payout decisions of listed firms operating in the Nigerian stock exchange market using the regression analysis method. The study in its findings observed that there is a significant positive relationship between firms' financial performance, size of firms and board independence on the dividend payouts decisions of listed firms in Nigeria.

Adesola and Okwong (2009) carried out dividend policy of a cross section of 27 Nigeria quoted companies using theories tested to explain dividend behaviour of those

firms. The study reviewed a more recent data for the period (1996 – 2006) and a model with the necessary policy variables constructed. The study revealed that the traditional factors are significant in explaining and predicting their dividend decision within the period under review. Also, the results confirmed that share market price is a representation of market valuation of dividends.

Olowe and Moyosore (2008) investigated the determinants of dividend payout in the Nigerian banking listedindustry over the period 2006 to 2008. The study employed pooled regression techniques using the data of the Nigerian quoted banks. The results showed that profitability, Liquidity, Size and Activity mix are statistically significant factors which positively influence dividend payout. The results also showed that revenue growth, debt-equity ratio, retained earnings, loan-deposit ratio and loan-loss provision negatively influence dividend policy. The result of capital adequacy is inconclusive. The result of capital adequacy is significant in the regression of bank specific variables with dividend payout but insignificant in the combined variables with dividend payout.

3.0 Methodology

This study adopts ex-post facto research design. This is because the phenomenon observed in the study has already taken place. Ex post facto research is ideal for conducting social research when is not possible or acceptable to manipulate the characteristics of human participants. The population of the study comprises of all the twenty-five (25) listed consumer goods firms in Nigeria as at the period of research. The study covered a period of five years (2015-2019). The sample size for the study was arrived based on the following filter criteria: (i) A firm must have been quoted on the floor of the Nigeria Stock Exchange at least 1 year before 2015. (ii) A firm must be on the NSE listing and its shares constantly traded on the floor of the Exchange for most of the period covered by the study. (iii). A firm must have its annual report and accounts accessible for most of the period under study. Hence, only nine listed consumer goods firms (Cadbury Plc., Nestle Plc., Guinness Plc., Nigeria Breweries Plc., NASCON Plc., Flour Mills of Nigeria Plc., Seven Up of Nigeria Plc., P.Z Cussons Nigeria Plc., Northern Nigeria Flour Mills Plc.) met the criteria, and therefore constitute the sample of the study.

The secondary data relating to dividend payout ratio, business risk, life cycle and tangibility of assets were extracted from the audited financial statement of selected Consumer Goods companies listed on Nigeria Stock Exchange for a five consecutive years study periods from 2015 to 2019 accounting years. Market share price data was taken from the Daily Official List and Statistical Bulletin of the Nigerian Stock Exchange over earlier specified five-year period.The study employed descriptive statistics; to know the characteristics of the variables, Pearson product moment correlation; to know the relationship among the variables and a panel data multiple regression technique was used as the tool of analysis to test relationships among theoretically related variables and estimating the effects of one variable on the other with the aid of statistical package (STATA 13). The use of panel data regression methodology in this study is based on the fact that the data used are cross-sectional and time series. To ensure the reliability of results, the study carried out some diagnostic test like Multicollinearity, and Homoskedasticity. The essence is to guard against spuriousness as observed by Gujarati and Porter (2004) that, the presence of these factors usually bias the OLS estimators and thus, any conclusion drawn from the results will be spurious.

3.1 Model Specification

The model used dividend payout ratio as the dependent variable and three independent variables, which include business risk, life cycle, and tangibility of asset. The multiple regression models as adopted from Labhane and Mahakud (2016), this study then modified their model specification as stated below:

$DPYRit = \beta 0 + \beta 1 BUSRKit + \beta 2 LFCLEit + \beta 3 TANGit + \varepsilon i$..... (1)

Where:

DPYRit = Dividend payout ratio for company in i year t

β0= Coefficient of the constant variable

BUSRKit = Business risk for company in i year t

LFCLEit = Life cycle for company in i year t

TANGit = Tangibility of assets for company in i year t

$\beta 1, \beta 2, \beta 3 =$ Regression coefficients of independent variables

ε_i= error term.

Dividend Payout Ratio (DPR): This variable measures the percentage of the company's earning distributed to shareholders. It is computed as dividend paid divided by net income (Rozeff, 1982).

Business Risk (BUSRK): It will be proxied by the P/E ratio and measured as the market price per share divided by earning per share (Fama & French 1998).

Life Cycle (LFCLE): The present study uses the ratio of retained earnings to total equity as measurement of firm's life cycle (Labhane & Mahakud, 2016).

Tangibility of Assets (TANG): The tangibility of asset has been measured as the fixed assets divided by total assets (Labhane & Mahakud, 2016).

A review of prior studies has resulted to the following testable null hypotheses.

$H0_1$: There is no significant relationship between business risk and dividend policy of listed consumer goods firms in Nigeria.

$H0_2$: There is no significant relationship between life cycle and dividend policy of listed consumer goods firms in Nigeria.

$H0_3$: There is a negative relationship between tangibility of assets and dividend policy of listed consumer goods firms in Nigeria.

4.0 Results and Discussions

4.1 Descriptive Statistics

The description of the data collected for the study is presented in table 1.

Table 1: Descriptive Statistics of the Variables

Variables	Minimum	Maximum	Mean	SD	N
DPYR	0.27	0.32	0.29355	0.01281	45
BUSRK	9.03	11.7	10.1495	0.78354	45
LFCLE	0.13	0.87	0.58822	0.22112	45
TANG	0.24	0.89	0.57777	0.16100	45

Source: STATA 13 Output, 2020.

Table 1 show that our measure of dividend policy (DPYR), has an mean value of 0.29355 with standard deviation of 0.01281, and minimum value of 0.27 and 0.32 as the

maximum value. The table also indicates that the business risk (BUSRK) has a mean value of 10.1495 with standard deviation of 0.78354, and the minimum and maximum value of 9.03 and 11.7 respectively. The summary descriptive statistics in table 4.1 shows that on average, the lifecycle (LFCLE) during the period of the study is around 0.58822 with standard deviation of 0.22112, the minimum and maximum values are 0.13 and 0.87 respectively. The tangibility (TANG) has a mean value of 0.57777 while the minimum and maximum values are 0.24 and 0.89 respectively.

4.2 Correlation Analysis

Table 2: Correlation Matrix of Dependent and Independent Variables

	DPYR	BUSRK	LFCLE	TANG
DPYR	1			
BUSRK	0.2508	1		
LFCLE	0.3513	0.4795	1	
TANG	0.1003	0.0018	0.5493	1

Source: STATA 13 Output, 2020.

The results analysis of table 2 shows that there is a significant positive association between dividend payout and each of business risk, life cycle and tangibility. The highest correlation between independent variables is 0.54 and that occurred between life cycle (LFCLE) and tangibility (TANG). (Gujarati & Porter, 2009) suggest that simple correlation between independent variables should not be considered harmful until they exceed 0.8 or 0.9.

4.3 Regression Diagnostics

To ensure the reliability of results, the study carried out some diagnostic test like Multicollinearity, and Homoskedasticity.

4.3.1 Normality Test

The normality assumption assumes that the errors of prediction are normally distributed. In assessing the normality of the data collected for the variables of the study, Shapiro-Wilk (W) test is applied and the result is presented in table 3. Under this technique, null hypothesis principle is used to check a variable that came from a normally distributed population. The null hypothesis states that the data are normally distributed if probability value is more than 5%, therefore the results indicates that data from life cycle (LFCLE), and tangibility (TANG), are not normally distributed because the P-values are significant at 1% level of significance. Thus, the null hypothesis that the data is normally distributed is rejected. On the other hand, dividend payout ratio (DPYR) variable and business risk (BUSRK) are normally distributed as evidenced by the p-value of 0.07335 and 0.18244 for DPYR and BUSRK respectively.

Table 3: Results of Normality Test

Variables	N	W	V	Z	Prob > z
DPYR	45	0.95420	1.983	1.451	0.07335
BUSRK	45	0.96459	1.533	0.906	0.18244
LFCLE	45	0.86110	6.015	3.803	0.00007
TANG	45	0.87133	5.572	3.640	0.00014

Source: STATA 13 Output, 2019.

4.3.2 Multicollinearity Tests

Multicollinearity refers to the situation in which independent variables are highly correlated; resulting in a paradoxical effect, whereby the regression model fits the data well, but none of the independent variables has a significant impact in predicting the dependent variable (Gujarati & Porter, 2009). The existence of multicollinearity is tested by calculating the Variance Inflation Factor (VIF). According to the rule of thumb VIF coefficient greater than 10 indicates the presence of multicollinearity. The VIF values in the table 4 below less than 10 so there is no multicollinearity problem that means the Independent variables included in the model are not substantially correlated with each other.

Table 4: Results of Multicollinearity Test

Variables	VIF	Tolerance
BUSRK	2.14	0.467440
LFCLE	1.65	0.606980
TANG	1.49	0.669400
Mean VIF	1.76	

Source: STATA 13 Output, 2020.

4.3.3 Homoskedasticity Test

Homoskedasticity refers to the assumptions that dependent variable(s) exhibit equal levels of variance across the range of independent variable(s) (Gujarati & Porter, 2009). To test for homoscedasticity, the Breush-Pagan test was used. Results reported in table 5 indicate that the null hypothesis cannot be rejected since the p-values of both tests are considerably greater than 0.05.

Table 5 Breusch-Pagan / Cook-Weisberg test for Heteroskedasticity

Test	**Chi-square**	**Prob>chi2**
Breusch-Pagan / Cook-Weisberg	1.48	0.2230

Source: STATA 13 Output, 2020.

4.4 Regression Results

Regression results in table 6 reveal how independent variables influence dependent variable under investigation for all the sampled listed consumer goods firms in Nigeria.

Table 6: Regression Results

No. of Observation	45		
F-statistic	10.92		
Prob. > F	0.0000		
R-square	0.4441		
Adj. R-squared	0.4035		
Variables	Coefficient	**t-statistic**	**Sig.**
BUSRK (Business risk)	0.8068907	4.77	0.000
LFCLE (Life cycle)	12.36991	5.23	0.000
TANG (Tangibility)	-0.5288339	-2.61	0.013
(Constant)	-98.53119	-3.92	0.000

Source: STATA 13 Output, 2020.

The result from table 6 show that the adjusted R^2 of the regression model is 40%, implying that the independent variables (business risk, life cycle and tangibility) employed in the model explain 40% of the variation in dividend payout ratio by consumer goods companies listed on Nigeria Stock Exchange (NSE). The results also revealed a positive significant between business risk, life cycle, and dividend payout ratio while tangibility has negative relationship with dividend payout ratio.

Based on the regression results, the business risk is statistically significant at the 0.01 level of significance. The result reveals that business risk has positive relationship with dividend policy and when business risk increases by one unit, the dividend policy will increase by 0.80. The regression results indicate that business risk determine dividend policy of listed consumer goods firms in Nigeria. The implication is that the companies with high payout ratio policies are characterized by low operating income variance, large company asset sizes, and ability to generate high profits. The finding is consistent with findings of Labhane and Mahakud (2016) who found that the business risk influences the dividend policy. The finding of the study is inconsistence with the finding of Hosain (2016).

The results show that life cycle has a positive relationship with dividend policy which means that as life cycle increases by one unit, the dividend payout ratio also increases by 12.36. This means that the maturity life of listed consumer goods influences the company dividend policy. The implication of of this is that the large companies that have matured (mature) with stable operations, have large assets and profitable and tend to have dividend payout ratio. The finding is consistent with the findings of Labhane and Mahakud (2016).

The tangibility is inversely significant with dividend policy. The regression results in table 4.6 show that a one unit increase in tangibility will lead to 0.52 decreases in

dividend policy. This can be justified that for any consumer goods firm who decides to grow in assets will pay less dividend in other to have more money to acquire the needed fixed assets. This result contradicts the findings of Labhane and Mahakud (2016) who found that tangibility has no significant relationship with dividend policy.

5.0 Conclusion and Recommendations

Based on the outcomes of the study, the study therefore concludes that business risk has a significant positive effect on dividend policy. The larger the business risk, the more the dividend to be declared. The study also concludes that life cycle has a positive significant relationship on dividend policy. This indicates that the mature firms have fewer investment opportunities, more accumulated profits and retained earnings which cause them to pay more dividends and in contrast to this, younger firms have new growth opportunities and need to build reserves of profit to finance its growth opportunities that result in less dividend payment. Furthermore, the study concludes that tangibility has a negative significant relationship on dividend policy. This indicates that for any consumer goods firm who decides to grow in assets will pay fewer dividends in other to have more money to invest in the needed fixed assets.

The study recommends that the managers should consider the major determinants of dividend payout ratio while formulating the appropriate dividend policy for a firm. Considering the nature of the companies on the basis of payment of dividends the investors can choose the companies for better investment.

References

Abdulkadir, R.I., Abdullah, N.A.H., & Wong, (2016). Dividend payment behaviour and its determinants: The Nigerian evidence. *African Development Review*, *28*(1), 53–63.

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.

Al-Najjar, B., & Hussainey, K. (2009). The association between dividend payout and outside. *Journal of Applied Accounting Research*, (10), 4-19.

Amidu, M., & Abor, J. (2006). Determinants of dividend payout ratios in Ghana. *The Journal of Risk Finance, 7*(2), 136–145.

Aregbeyen, O., & Olufemi, J. (2011). The impact of recapitalisation and consolidation on banks costs of equity in Nigeria. *International Business Management, Medwell Journals,* 5(3), 159-165.

Bassey, N.E., Atairet, E.A., &Asinya, F.A. (2014). Determinants of dividend payout of financial institutions in Nigeria: A study of selected commercial banks. *Research Journal of Finance and Accounting, 5*(7), 74-79.

D'Souza, J., & Saxena, A. K. (1999). Agency Cost, Market Risk, Investment Opportunities and Dividend Policy – an International Perspective. *Journal of Managerial Finance, XXV* (6), 35-43.

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

Fischer, B. (1976). The dividend puzzle. *Journal of Portfolio Management, 2*(2), 5-8.

Gujarati, D. & Porter, D. (2009). *Basic Econometrics*, 5th edition, New York: McGraw-Hill.

Huang, T., Wu, F., Yu, J., & Zhang, B. (2015). *Political risk and dividend policy: Evidence from international political crises. Journal of International Business Studies, 46*(5), 574–595.

Horne, J. C. V., & Wachowicz, J. M. (2008) *Fundamentals of Financial Management*. 13th ed. Pearson Education.

Hosain, Z.M. (2016). Determinants of the dividend payout policy: A study on listed private commercial banks of Dhaka stock exchange limited in Bangladesh. *Journal of Economics and Finance, 7*(5), 1-10.

Inyiama, E.C., Okwo, M.I., & Oliver, I. I. (2015). Dividend payout policy determinants of selected listed brewery firms in Nigeria: A meta-analysis. *European Journal of Business, Economics and Accountancy, 3*(3), 101-118.

Jaara, B., Alashhab, H., & Jaara, O. O. (2018). The determinants of dividend policy for non-financial companies in Jordan. *Journal of Economics and Financial Issues,* 8(2), 198-209.

Jensen, M. C., &Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, *3*(4), 305–360.

Kuzucu, N. (2015). Determinants of dividend policy: A panel data analysis for Turkish listed firms. *International Journal of Business and Management. 10*(11), 149-160.

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

Maude, A., Jimoh, I. O. & Okpanachi, J. (2015). Dividend payout pattern: Nigeria deposit money banks in perspective. *European Journal of Accounting, Auditing and Finance Research, 3*(10), 58-66.

Miller, M.H. & Modigliani, F. (1961). Dividend policy, growth, and the valuation of shares. *The Journal of Business*, *34*(4), 411-433.

Mueller, D. C. (1972). A life cycle theory of the firm. *The Journal of Industrial Economics*, 20(3), 199–219.

Oloidi, A.G., & Adeyeye, P.O. (2014). Determinants of dividend per share: Evidence from the Nigerian stock exchange. *International Journal of Economics and Empirical Research,* 496-501.

Olowe, R.A., & Moyosore, S.L. (2008). Determinants of dividend pay-out in the Nigerian banking industry. *Journal of Finance and Research,* 1-23.

Rehman, A., & Takumi, A. (2012). Determinants of Dividend Payout Ratio: Evidence from Karach Stock Exchange. *Journal of Contemporary Issues in Business Research, 1*(1), 20-27.

Rozeff, M., (1982). Growth, beta, and agency theory costs as determinants of dividend payout ratios. *Journal of Financial Research*, *5*(3), 249-259.

Shleifer, A & Vishny, R.W (1997). A survey of corporate governance‖. *Journal of Financial Economics*, 52(2), 737-783.

Soondur, S.A.K., Maunick, D. & Sewak, S. (2016). Determinants of the dividend policy of companies listed on the stock exchange of Mauritius. *Proceedings of the Fifth Asia-Pacific Conference on Global Business, Economics, Finance and Social Sciences.* 1-18.

Surasmi, I.A., Widari, D.A.P.N., Warmana, G.O., & Widnyana, I.W. (2019). The impact of business risk on dividend policy in manufacturing companies listed on Indonesia stock exchange. *Academy of Social Science Journals, 4*(11), 1488-1493.

Uwuigbe, U., Jafaru, J. & Ajayi, A (2012). Dividend policy and firm performance: A study of listed firms in Nigeria. *Accounting and Management Information System*, *2*(3): 442-454.

Zayol, P.I., Mya, A.T., & Muolozie, M. (2017). Determinants of dividend policy of petroleum firms in Nigeria. *Journal of Economics and Finance, 8*(3), 54-62.