

Dividend Policy Determinants of Firm Value in Nigeria

Edeh Lawrence 1

Oyekezie Kingsley 2

Ifurueze Priscilla 3

Abstract

Based on the Signalling theory framework, this study x-ray on the fundamental roles of dividend policy acting as a determinant of firm value. Specifically, this paper aims to explore the determinants of firm value from the dimension of corporate dividend policy by exploring a sample of eight-one (81) non-financial firms listed on the floor of the Nigerian stock exchange market during the period between 2010 and 2018. Dividend policy proxies that were considered in this study includes dividend yield and dividend per share which were also the independent variables while firm value (dependent variable) is proxied with firms' market to book ratio. In this study, robust least square regression analyses technique is employed to evaluate the panel data set that were collated from annual financials reports of the sampled non-financial companies. The findings indicates that dividend per share indeed does determine firm value. This outcome is consistent with the signalling theory which promotes the policy of paying higher dividend to shareholders and equally serve as a weapon for averting managers' self-interest which is detrimental to shareholder's interest. Therefore, we carefully recommend that since profitability drives dividend and dividends influence the share prices of the firms, managers may use dividend per share to convey information on the competitiveness of their firms.

Keywords: Dividend Policy, Firm Value, Dividend Yield, Dividend per Share, Robust Least Square Regression

1, 3 Tansian University, Umunya, Nigeria

2 Alex Ekwueme Federal University, Abakaliki, Nigeria

1. Introduction

It has been well documented that the goal of management is to create value for shareholders; specifically, to maximize shareholder wealth (Lee & Lee, 2019). However, despite extensive theorizing and empirical research, considerable debate exists on whether dividend policy plays a role in achieving this goal. In this regard, Miller and Modigliani (1961) show that in a perfect world dividend policy has no effect on firm value and this has sprung up so many criticisms with the clause that we do not live in a perfect world. Somewhat closer to the real world, Black (1976) argues that since dividends are tax disadvantaged when compared to stock repurchases, dividends should have a negative effect on firm value. Although the percentage of public firms that pay dividends has declined since Black's time a substantial number of firms continue to pay dividends which leads to the question Why? (Fama & French, 2001)

Early literature on dividend policy presents two different views about the relationship between cash dividends and firm value. One view, which have been attributed to Miller and Modigliani (1961) and echoed in Black (1976), suggests that dividends are irrelevant for firm value and possibly value-destroying. "The harder we look at the dividend picture, the more it seems like a puzzle, with pieces that just don't fit together (Black 1976)" Another perspective, represented in the novel studies of Lintner (1965), and Gordon (1959), considers dividends as an important determinant of firm value. Similarly, Baker and Weigand noted that firms are afraid of cutting dividends as the signaling effect will have a negative impact on stock price. Firms would rather manipulate stock price and sustain a higher stock price than what financial performance otherwise would produce. The essence of signaling theory is that a firm's management is likely to have private knowledge about the current and future situation of their company than outsiders will have (asymmetric information). Hence, dividend pay-outs may function as a signal of a company's financial health, with an increase in dividends indicating that managers expect their business to have a higher cash flow in the future. Consequently, a higher value is signaled by higher dividends.

Another major reason is that cutting dividends is often associated with a company having financial difficulties, therefore dividend cut would likely lead to the market assuming there is trouble and inevitably start generating uncertainty (Lee & Mlauck, 2016). More than this, the agency theory suggests that unless earnings are distributed to outside shareholders, they might be diverted by managers for personal utility or committed to unprofitable ventures that provide private benefit for managers. As a result, agency cost implies that shareholders have a preference for dividends over profit, and firms with generous dividend payments will improve their value by decreasing the amount of funds available to managers (Ham, Kaplan & Leary, 2019). Hence, varying views and position gives room for further research in this area. Furthermore, as posited by Ilaboya and Aggreh (2013) and highlighted in the studies of Ham, Kaplan & Leary, (2019) there are limited studies as it relates to the effect of dividend policy on the value of a firm in emerging markets such as Nigeria.

Statement of Problem

Managers are in a dilemma about whether to pay a large, small or zero percentage of their earnings as dividends or to retain them for future investments. This is because of the need for management to satisfy the various needs of shareholders. For instance, shareholders who need money now for profitable investment opportunities would like to receive high dividends now. On the other hand, shareholders who would like to invest in the future will prefer dividends to be

retained by the company and be reinvested which connote that dividend policy has potential implications on share prices (Press & Review, 2009). Every investor targets a return from his/her investment (Lumapow & Tumiwa, 2017) which is the notion of shareholders' wealth maximization (Nnadi et al., 2013). Little wonder why Priya & Mohanasundari (2016) argued that managers should be aware of ways to maximize shareholder's wealth such that good decisions related to investment and financing by managers becomes imperative.

The Nigerian Stock Exchange was established to become a big contributor to economic development and lead the country to a regional financial centre status (Nigerian Stock Exchange Fact Book, 2019). Its main mission is to facilitate easier fundraising for companies and warranty more sustained investments for the public. It intends to keep a fair and transparent market mechanism that will shield shareholders' rights and support a flourishing economy. It also facilitates the issues and redemption of financial securities and financial instrument, and capital events like income and dividends payment. Hence, dividend policy would be one of the tools that should be used to maximize shareholders wealth and firm's value.

However, the main obstacle for many managers of listed companies in Nigeria is to know the right portion of profit (if need be) that should be grasped for further investments or that should be allocated to shareholders as dividend. More than this, it is well documented that prior related studies have been conducted in Nigeria using pay-out ratio as the only measure of dividend policy hence ignoring other dividend policy ratios which include dividend yield, dividend-asset ratio, and dividend per share. However, by exploring these options, we intend to brighten the dividend policy picture and provide a more robust scope towards dividend literature in Nigeria. Furthermore, in the views of Proffitt and Bacon (2013), dividend policy determinants of firm value differ across different industries of the economy. Hence, following this concern we are poised to distinctly shed light into dividend policy determinants of firm value of both finance and non-finance firms of Nigeria off which less known related study has been previously attempted.

2. Literature Review

Conceptual Literature

Firm Value

Firm value represents the assets owned by a company. It is crucial because it describes the prosperity of the business owners. The manager being the representative of the owners of the business is responsible for optimal maximization of the value of the firm which forms the fundamental objective of any organization (Bhabra, 2007). Higher firm value indicates that the company is prosperous hence the shareholders' wealth is maximized indicating that the prosperity level of the shareholders and investors are reflected in the firms' value. Firm value is an indicator used to assess the performance of a company. Investors also perceive the company through its firm value, and this is related to its stock price. According to Ftouhi, Ayed and Zemzem (2015), higher stock price will make for higher firm value. Furthermore, Bhabra (2007) opined that firm value is the price paid by the wealthy buyer when a company is sold, and he also sees firm value as the objective value from the public and the orientation of company's survival. Clearly, it is seen that firm value is the investors' perception towards a company's success level, and this is usually associated with stock price. Firm value is typically indicated by market to book value. Accordingly, when this value is high this means that the principle of going concern is operational which translates into shareholders' wealth. Modigliani and Miller (1961) opined that firm value is determined by company's asset earnings power implying that, when the impact of asset earnings power is positive, the company is doing well, and its asset turnover will

be more efficient, and this results in high profit. Firm value may be measured from two perspectives: from the point of view of accounting measure of profitability: return on assets (ROA), return on equity (ROE), Tobin's Q, net profit margin; or from the stock market perspective, using Market to book ratio and share price from the Stock Exchange market. This study adopts Market to Book ratio as a measure of firm value because of its popularity and wide acceptability.

Dividend Policy

Dividend policy indicates the disbursement policy, which directors follow in making decision of the pattern as well as size of cash supply to stockholders over a particular time. Dividend policy is a company's policy focusing on paying out salaries as dividend against retaining them for investment back in the company. It is the section of profit between expenditures to stockholders as well as reinvestment in the company (Lashgari & Ahmadi, 2014). A dividend policy is also defined as the strategy of action accepted by the company's managements every time there is a choice to be made (Aduda & Kimathi, 2011). The main concern of a dividend policy decision is about how much incomes can be paid as dividend by the company and how much could be reserved. The determination of the dividends amount allocated is a significant decision that businesses assume because the aim of the company is to exploit the stockholders' capital (Waithaka, 2012). Firms usually come up with policies, which are meant to assist them in achieving their various goals using different approaches including stable predictable, constant pay-out and so forth (Aduda & Kimathi, 2011).

Dividend Per Share

Dividend is commonly defined as the distribution of earnings (past or present) in real assets among the shareholders of the firm in proportion to their ownership (Sujata, 2009). Therefore, distributions made from the company's profits/earnings and the decision to pay out dividends is based on the firm's dividend policy. A dividend per Share (DPS) is the sum of dividends declared by a company divided by the number of outstanding ordinary shares issued. According to Zameer, Rasool., Iqbal., & Arshad, (2013) there are varied reasons why companies pay dividends. It may either be a way to reduce the rise in agency cost between managers and shareholders or to reduce the uncertainty of the investors of the company. If the goal of the investor is to receive returns on a continuous basis, he will prefer to invest in firms paying dividends. Dividends are mostly paid out by companies that are in a better cash position and whose earnings can be said to best able and sound. According to Denis and Osobov (2008), large, mature and more profitable firms are thought to be highly probable to pay dividends as they can even source for such funds to pay out dividends from cheap external debt sources at their disposal.

Dividend Yield

Dividend-yield is one of the most important financial ratios. The dividend-yield tells us how much the company pays out in dividends each year relative to its share price. There are different ways to interpret the dividend-yield. It is a controversial indicator since there is no consensus on how to interpret it. A high dividend yield implies that the company is of high risk and the prospect of the future is negative therefore results in a price decrease of the share. The shareholders might be afraid that large amount of money disappears from the company in the form of dividends. The investors might believe the earnings would be better spent as retained earnings in order to invest in profitable investment opportunities. As a result, the investors would

sell their equities and the stock price would decrease.

If a company has a low dividend-yield, the market participants might expect the company to be more profitable in the future. The market participants might assume the stock price will rise since the last years have been troublesome for the company. There are many explanations why the participants might have this expectation. One is that the stock market has been in an economic downturn, and it is about to rise again. - A low dividend-yield could also imply that the company is struggling and is neither profitable nor has a positive prospect of future. The market participants assume the management of the company has inside information about the future, hence low dividend-yield might be interpreted as distressed times are coming. The effect of this interpretation is that the shareholders sell the equities and as a result, the stock price decreases. However, this effect might only be temporary if the distressed times does not materialize (Black & Scholes, 1973).

Dividend Policy and Firm Value

Numerous theories as well as models have been recognized on the significance as well as insignificance of dividend policy. Furthermore, writers continue to develop conclusions with respect to dividend policy from their experiential research (Thafani & Abdullah, 2014). For instance, Miller and Modigliani (1961) under the dividend irrelevance theory show that under certain simplifying assumptions, a company's dividend rule does not influence its worth hence irrelevant. On the other hand, Gordon (1962), Lintner (1963), Ross (1977) and other scholars argue that dividend policy affect the value of the firm hence relevant. According to Deeptee and Rosan (2009), the dividend policy choice for the company is very significant therefore, the way bosses go about creating dividend policy choices as well as if or not they monitor a particular set of policies or precise plans to make these adoptions will influence the firm's value. Deeptee and Rosan (2009) also explains that in the business' viewpoint, choosing an appropriate dividend policy is a significant choice for the firm. As such, managers in designing their dividend policies consider certain significant features such as decision-making as well as behavioural environment, companies' productivity proportions, and the willingness of the company. In this regard, Thafani and Abdullah (2014) revealed an association between dividend disbursement and company productivity in terms of return on assets, return on equity and income per share while similar study of Aroni, Namusonge and Sakwa (2014); Ozuomba, Okaro and Okoye (2013); Oladele (2013) noted a significant relationship with creation of value.

Theoretical Framework

Signalling Theory

The signalling theory of dividends has its origins in Lintner, (1956) studies who revealed that the price of a company's stocks usually changes when the dividend payments changes. Even though Modigliani & Miller (1961) argued in favour of the dividend irrelevance they also stated that in the real world disregarding the perfect capital markets, dividend provides an "information content" which may affect the market price of the stock. Many researchers have thereafter been developing the signalling theory and today it is seen as one of the most influential dividend theories. (Bhattacharya, 1979) presented one of the most acknowledged studies regarding signalling theories which states that dividends may function as a signal of expected future cash flows. An increase in dividends indicate that the managers expect higher cash flows in the future. The theory is based on the assumptions that outside investors have imperfect information regarding the company's future cash flows and capital gains. Another important assumption is

that dividends are taxed at a higher rate compared to capital gains. Bhattacharya (1979) argues that under these circumstances even though there is a tax disadvantage for dividends, companies would choose to pay dividends to send positive signals to shareholders and outside investors. Many studies have been conducted to test if the signalling theory applies in the real world and there exist different opinions regarding the applicability of the signalling theory. Asquith & Mullins Jr (1983) provided empirical evidence in favour of the signalling theory. They argue that an increase of dividend payments tends to increase the shareholders wealth.

Empirical Review

Gul, Sajid, Razzaq, Iqbal, & Khan (2012) conducted a study in Pakistan testing the relationship between dividend policy and shareholders' wealth. The study is based on a sample of 72 companies listed on the Karachi Stock Exchange from 2005-2010. The authors used multiple regression and stepwise regression method to study the impact of dividend policy on shareholders' wealth. Market value of equity is the depended variable; a proxy for measuring shareholders' wealth. The independent variables include dividend per share, retained earnings, lagged price to earnings ratio and lagged market value of equity. Dividend per share is used as a proxy for measuring the dividend policy of a firm. The regression result show that the market value of companies that pay dividends is well above the book value as compared to companies that do not pay dividends. They reported that there is a significant difference between shareholders' wealth in companies that pay dividends than those that do not pay dividends.

Timothy and Peter (2012) sought to establish the relationship between dividend pay-out and firm performance of listed firms on the Nairobi Securities Exchange during the period of 2002 - 2010. The regression analysis employed indicated that dividend pay-out is a major factor affecting firm profitability measured by net profit after tax. The relationship is also strong and positive indicating that dividend policy is relevant.

A study by Odesa and Ekezie (2015) examine factors that determine dividend policy of listed companies in Nigeria. The study used descriptive and ex-post facto research design together with regression analysis to test the relationship between the variables. The study revealed that investment opportunity has a negative relationship with dividend policy whereas debt, return on equity, structure of shareholder, and last paid dividend have a significant positive relationship with dividend policy.

Anike (2017) examined effect of dividend policy and earnings on share prices of Nigerian banks. The study adopted ex-post-facto research design and panel data covering 5- year period 2006-2010 which were collected from banks annual reports. The study findings established that dividend yield had negative significant effect on banks' share prices. In addition, earnings yield had negative significant effect on banks' share prices and dividend pay-out ratio had negative non-significant effect on banks' share prices. Hence, the study revealed that dividend yield, earnings yield and pay-out ratio are not factors that influences share prices during the period under investigation.

Husain and Sunardi (2020) aimed to empirically prove the effect of dividend policy on firm value. Firm value is measured using Price-to-Book Value Approach. The study included a sample of 11 firms under the automotive and components sub sector listed in the Indonesia Stock Exchange. It included data for the period of 2014-2018. The study applied path analysis using the Sobel test of the direct and indirect effects. The study finds that dividend policy has no significant effect on Firm's Value.

Hafeez, Shahbaz, Iftikhar and Butt (2018) investigate the relationship between dividend policy and firm performance. The sample contain 15 manufacturing companies for year 2014 to 2017. Return on asset and return on equity were used as dependent variables while dividend pay-out ratio, earning per share, price earnings ratio represented the independent variables. Multiple regression, correlation and descriptive statistics were used as data analysis techniques. Findings reveal that all the independent variables have a positive relationship with dependent variables. Dividend pay-out ratio, earning per share, price earnings ratio positively influence return on equity and return n asset.

3. Methodology

Specifically, in this study, ex-post facto research design is employed. Ex post facto research uses data already collected, but not necessarily amassed for research purposes. The population of this study is made up of all non-financial companies listed on the Nigerian Stock exchange for the period 2010 to 2018. However, as of 31st December 2018, there were 106 non-financial companies quoted on the floor of the Nigerian stock exchange market (website of the Nigerian Stock Exchange Market 2018). To avoid sample bias, the simple random sampling technique is adopted to select listed non-financial companies that formed the sample size. Succinctly, the researcher deselected 9 non-finance firms bringing the final sample size for this study to 81 non-finance firms. The 9 firms were deselected on the basis that they got listed on the Nigerian stock exchange market after the study period (2010). This enabled the researcher to obtain a balance panel for the analyses. In examining the *dividend policy determinants of firm value of listed non-financial firms in Nigeria*, we adopt the robust least square regression technique for the analysis. Furthermore, we modified the study of Husain, Sunardi, Lisdawati (2020) to express the econometric equation as:

Model Specification

$$MTBV_{it} = \beta_0 + \beta_1 DIPS_{it} + \beta_2 DIYD_{it} + ROE_{it} + e_{it}$$

Where:

MTBV represents market to book value which is computed as total equity divided by market capitalisation; DIPS represent dividend per share which is computed as cash dividend paid divided by outstanding shares; DIYD represents dividend yield which is computed as cash dividend paid divided by Market capitalisation, and ROE represents Return on Equity which is computed as profit after tax divided Total equity. "i" for cross sections (firms in the study), "t" for time and e_{it} for error term

4. Results and Discussion

The study evaluates dividend policy determinants of firm value in Nigeria drawing samples from listed non-financial firms in Nigeria. While firm value proxied by market to book value is the dependent variable, the independent variables that is employed for this study includes: dividend yield and dividend per share. Further, we adopt profitability measure of return on equity as control variable for the model. The data set span through a 9 year period (2010 – 2018) and we conducted summary statistics which the results are shown in 4.1 below. The table below describes the nature of the data by revealing the mean (average), median, maximum, minimum, standard deviation and sum for each of the variables.

Table 4.1 Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
mtbv	725	-.477393	54.067	-1176.19	103.9
dips	722	.91241	3.334046	0	56.21
diyd	722	3.126219	4.770095	0	51.72
roe	725	113.5986	2618.475	-1964.35	69701.14

Source: STATA'16 Output

From the table above, it is observed that on average, the value of market to book is -0.48 with a standard deviation of 54.07. We also find that on average, dividend per share for the firms under consideration is 0.91 with a standard deviation of 3.33. The table also shows that on average, dividend yield is 3.13 with a standard deviation of 4.77 while on average the control variable return on equity is 113.60 on average with a standard deviation of 2618.48.

Regression Analyses

In this study we carry out Panel Least Square Regression analysis and proceed to check if the basic assumption of the least square regression has been violated. The results obtained is as shown in the table below.

Table 4.2 Ordinary Least Square & Robust Standard Error Estimation Result

Variables	Dividend Per Share	Dividend Yield	Return on Equity
Models			
Ordinary Least Square Regression			
Coefficient	0.748	0.151	-0.011
t_ Statistics	(1.47)	(0.42)	(-17.66)
Probability-t	{0.142}	{0.672}	{0.000}*
Robust Least Square Regression			
Coefficient	0.751	-0.050	-0.002
t_ Statistics	(60.66)	(-5.77)	(-14.95)
Probability-t	{0.000} *	{0.000} *	{0.000} *
No. of Obs.	722		
Prob. F statistics	0.0000		
R ²	0.3053		
VIF	1.01		
Heteroscedasticity	0.000		

Authors Computation 2021

The table above shows the results obtained from both the ordinary least square regression and the robust standard error model employed to test dividend policy determinants of firm value in Nigeria while drawing samples from listed non-financial firms in Nigeria. In this study like in most other related studies, the researcher employed the variance inflation factor (VIF) technique to diagnose multicollinearity in the specified model. Specifically, we follow Gujarati (2004) which allows VIF to be less than 5. However, the result as depicted from the table above showed that VIF is less than five (5) for all independent variables of interest. Test for homoscedasticity, which is a key assumption of the ordinary least square regression is also conducted. The result

obtained from the Breusch-Pagan test for heteroscedasticity indicate that the assumption of homoscedasticity has been violated due to very low probability value (P-value: 0.0000) which is statistically significant at 1% level. This justifies the use of the robust standard error regression estimator as seen from the table above. Overtime, this technique has proven to correct for the variances in the standard error. Further, the result above reveals an R^2 value of 0.3053 which indicates that about 31% of the variation in the dependent variable is being explained by the independent and control variables in the model. This also means that about 69% of the variation in the dependent variable is left unexplained but have been captured in the error term. The model goodness of fit as captured by the Fisher statistics (1293.75) with the corresponding probability value 0.0000 which shows a 1% statistically significant level indicates that the entire model is fit and can be employed for discussion and policy recommendation.

From the robust least square regression, we observed that dividend per share is a significant positive determinant of firm value during the period under investigation. This is shown as; DIPS (Coef. = 0.751, $t = 60.66$ and P -value = 0.000). Following the results above, it is revealed that dividend per share can determine firm value. This is positive and significant at 1% level. This result has a potential implication for share prices and hence returns to investors. (Omran & Pointon, 2004). This finding contradicts prior studies of Black (1976); Farsio et al (2004); Amidu (2007); Howatt et., al (2009). Further, the robust least square regression model reveal that dividend yield is a significant negative determinant of firm value during the period under investigation. This is shown as; DIYD (Coef. = -0.050, $t = -5.77$ and P -value = 0.000). This contradicts prior findings of Litzenberger and Ramaswamy (1979), Blume (1980), Hodrick (1992), Naranjo et al. (1998), and Lewellen (2004) who reported a strong positive relationship between expected returns as a measure of firm value and dividend yields. Specifically, Fama and French (1988) report that the power of dividend yield to forecast firm value in stock return increases with the return horizon. Specially, we find that increasing dividend yield of non-finance firms in Nigeria does not necessarily increase firm value.

5. Conclusion and Recommendation

In this study, the author aims to evaluate dividend policy determinants of firm value of listed non-finance firms in Nigeria. The scope of this study covers a 9-year period ranging from 2010 to 2018. The independent variables of interest include dividend per share and dividend yield. In this study, the researcher employed return on equity as control for the model which is in line with related extant literature. The issue of dividend policy in corporate organization in both developed and developing countries has been of great concern globally. Several theories have been proposed to explain the relevance of dividend policy and whether it affects firm value, but there has not been a universal agreement. This is more so because managers as decision makers are often confronted with the “dividend puzzle” which is the problem of reconciling observed dividend behaviour with economic incentives (Omran & Pointon, 2004).

Hence, dividend policy is considered as a hinge around which other financial policies rotate. From the findings, we conclude that dividend yield and dividend per share are determinants of firm value and carefully recommend that since profitability drives dividend and dividends influence the share prices of the firms, managers may use dividend per share to convey information on the competitiveness of their firms. Furthermore, the result reveals that a high dividend yield may not always be a good sign, as have been seen to depress firm value. This suggest in part that the company is returning so much of its profits to investors (rather than growing the company) hence, we recommend that management should concert policies and

efforts which will reduce profits share to investors and redirect those funds as retained earnings for the purpose of growing the company. This study considers dividend yield and dividend per share as proxies for dividend policies in relation to extant literature. Other studies in this area should include other dividend policy attribute like dividend pay-out increase and dividend pay-out decrease. Furthermore, the findings of this study are peculiar to non-finance sector, hence, future research can extend their scope to include finance sector.

REFERENCES

1. Aduda, J. O., & Kimathi, H. (2011). The applicability of the Constant dividend model for companies listed at the Nairobi Stock Exchange. *Journal of Financial Studies & Research*, 11.
2. Amidu, M. (2007). How does dividend policy affect performance of the firm on Ghana stock Exchange? *Investment management and financial innovations*, 4(2), 103-112.
3. Anike, E. A. (2017). *The impact of dividend policy and earnings on stock prices of Nigeria banks* (Doctoral dissertation).
4. Aroni, J., Namusonge, G., & Sakwa, M. (2014). The Effect of Financial Information on Investment In Shares-A Survey Of Retail Investors In Kenya. *International Journal of Business and Commerce*, 3(8), 58-69.
5. Asquith, P., Bruner, R. F., & Mullins Jr, D. W. (1983). The gains to bidding firms from merger. *Journal of financial economics*, 11(1-4), 121-139.
6. Bhabra, G. S. (2007). Insider ownership and firm value in New Zealand. *Journal of Multinational Financial Management*, 17(2), 142-154.
7. Bhattacharya, S. (1979). Imperfect information, dividend policy, and "the bird in the hand" fallacy. *The Bell Journal of Economics*, 259-270.
8. Black, F. (1976). The pricing of commodity contracts. *Journal of financial economics*, 3(1-2), 167-179.
9. Black, F., & Scholes, M. (2019). The pricing of options and corporate liabilities. In *World Scientific Reference on Contingent Claims Analysis in Corporate Finance: Volume 1: Foundations of CCA and Equity Valuation* (pp. 3-21).
10. Blume, M. E. (1980). Stock returns and dividend yields: Some more evidence. *The Review of Economics and Statistics*, 567-577.
11. Deeptee, P. R., & Roshan, B. (2009). Signalling power of dividend on firms' future profits a literature review. *International Interdisciplinary Journal*, 1(1), 1-9.
12. Denis, D. J., & Osobov, I. (2008). Why do firms pay dividends? International evidence on the determinants of dividend policy. *Journal of Financial economics*, 89(1), 62-82.
13. Fama, E. and French, K. (2001), "Disappearing dividends: changing firm characteristics or lower propensity to pay?", *Journal of Financial Economics*, 60, (1) 3-43
14. Fama, E. F., & French, K. R. (1988). Permanent and temporary components of stock prices. *Journal of political Economy*, 96(2), 246-273.
15. Farsio, F., Geary, A., & Moser, J. (2004). The relationship between dividends and earnings. *Journal for economic educators*, 4(4), 1-5.

16. Ftouhi, K., Ayed, A., & Zemzem, A. (2015, January). Tax planning and firm value: evidence from European companies. In *2nd International conference on Business Economics, Marketing & Management Research (BEMM'14) Vol* (Vol. 4).
17. Gordon, M. J. (1962). *The investment, financing, and valuation of the corporation*. Homewood, IL: RD Irwin.
18. Gordon, M.J. (1959), Dividends, earnings, and stock prices. *The Review of Economics and Statistics*, 41(2), 99-105.
19. Gul, S., Sajid, M., Razzaq, N., Iqbal, M. F., & Khan, M. B. (2012). The relationship between dividend policy and shareholder's wealth. *Economics and Finance Review*, 2(2), 55-59.
20. Hafeez, M. M., Shahbaz, S., Iftikhar, I., & Butt, H. A. (2018). Impact of Dividend Policy on Firm Performance. *International Journal of Advanced Study and Research Work*, 1(4), 1-5.
21. Ham, C.G., Kaplan, Z. & Leary, M.T. (2019) Do dividends convey information about future earnings? *Journal of Financial Economics* 136, 547–570.
22. Hodrick, R. J. (1992). Dividend yields and expected stock returns: Alternative procedures for inference and measurement. *The Review of Financial Studies*, 5(3), 357-386.
23. Howatt, B., Zuber, R. A., Gandar, J. M., & Lamb, R. P. (2009). Dividends, earnings volatility and information. *Applied Financial Economics*, 19(7), 551-562.
24. Husain, T., & Sunardi, N. (2020). Firm's Value Prediction Based on Profitability Ratios and Dividend Policy. *Finance & Economics Review*, 2(2), 13-26.
25. Ilaboya, O.J., Aggreh, M. (2013), Dividend policy and share price volatility. *Journal Asian Development Study*, 2(2), 109-122.
26. Lashgari, Z., & Ahmadi, M. (2014). The impact of dividend policy on stock price volatility in the Tehran stock exchange. *Kuwait Chapter of the Arabian Journal of Business and Management Review*, 3(10), 273.
27. Lee, B.S. & MLauk, N. (2016) Dividend initiations, increases and idiosyncratic volatility. *Journal of Corporate Finance*. 40, 47–60.
28. Lee, N.; Lee, J.R.D. (2019) Intensity and Dividend Policy: Evidence from South Korea's Biotech Firms. *Journal of Sustainability*, 11, 4837.
29. Lewellen, J. (2004). Predicting returns with financial ratios. *Journal of Financial Economics*, 74(2), 209-235.
30. Lintner, J. (1965), Distribution of incomes of corporations among dividends, retained earnings, and taxes. *The American Economic Review*, 46(2), 97-113.
31. Lintner, J. (1963). The cost of capital and optimal financing of corporate growth. *The Journal of finance*, 18(2), 292-310.
32. Litzenberger, R. H., & Ramaswamy, K. (1979). The effect of personal taxes and dividends on capital asset prices: Theory and empirical evidence. *Journal of financial economics*, 7(2), 163-195.

33. Lumapow, L. S., & Tumiwa, R. A. F. (2017). The Effect of Dividend Policy, Firm Size, and Productivity to The Firm Value. *Research Journal of Finance and Accounting*, 8(22), 20–24.
34. Miller, M. H., & Modigliani, F. (1961). Dividend policy, growth, and the valuation of shares. *the Journal of Business*, 34(4), 411-433.
35. Naranjo, A., Nimalendran, M., & Ryngaert, M. (1998). Stock returns, dividend yields, and taxes. *The Journal of Finance*, 53(6), 2029-2057.
36. Nnadi, M., Wogboroma, N., & Kabel, B. (2013). Determinants of dividend policy: Evidence from listed firms in the African stock exchanges. *Panoeconomicus*, 60(6), 725–74
37. Odesa, J. O., & Ekezie, A. (2015, September). Determinants of dividend policy in quoted companies in Nigeria. *Communication Panorama African and Global Perspectives*, 1(1), 1-13.
38. Omran, M., & Pointon, J. (2004). Dividend policy, trading characteristics and share prices: empirical evidence from Egyptian firms. *International Journal of Theoretical and Applied Finance*, 7(02), 121-133.
39. Ozuomba, C. N., Okaro, S. C., & Okoye, P. V. C. (2013). Shareholder's value and firm's dividend policy: Evidence from public companies in Nigeria. *Research Journal of Management Sciences*, 2(12), 26-28.
40. Priya, P. V., & Mohanasundari, M. (2016). Dividend policy and its impact on firm value: A review of theories and empirical evidence. *Journal of Management Sciences and Technology*, 3(3), 59–69
41. Profilet, K.A., Bacon, F.W. (2013), Policy and stock price volatility in the U.S. equity capital market. *Journal of Business and Behavioral Sciences*, 25(2), 63-72.
42. Ross, S. A. (1977). The determination of financial structure: the incentive-signalling approach. *The bell journal of economics*, 23-40.
43. Sujata, K. (2009). Impact of Dividend Policy on Shareholders' Value: A Study of Indian Firms. *Jaypee institute of information technology, noida*.
44. Thafani, A. R., & Abdullah, M. (2014). Impact of dividend pay-out on corporate profitability: evident from Colombo stock exchange. *Advances in Economics and Business management*, 1(1), 27-33.
45. Timothy, M. M and Peter O. (2012). The Relationship between Dividend Payout and Firm performance: A Study of Listed Companies in Kenya, *European Scientific Journal*, 8, 199 – 215
46. Waithaka, A. (2012). *The relationship between working capital management practices and financial performance of agricultural companies listed at the Nairobi Securities Exchange* (Doctoral dissertation).