



Research Paper

Dividend Policy and Firm Value: A Study of Companies Quoted At the Rwanda Stock Exchange

Jean Paul Hakizakubana Ngoboka¹, Edouard Singirankabo²

¹ Kenyatta University, School of Business, Department of Accounting and Finance

² Pan African University Institute for Basic Sciences, Technology and Innovation, Department of Mathematics
(Financial option)
Country: Rwanda^{1,2}

ABSTRACT

The financial market plays an important role since it helps companies in raising enough capital. Many researcher revealed that there are conflicting theories and too much discrepancy in dividend policy among companies. Hence, these theories do not clear enough show what should determine the dividend policy, how to maximize shareholders' profits, and how earning incomes would be distributed among the investors as they are varying within time. Some investigations discovered that; there is a huge gap between the dividend policy of companies operating in developed and developing economies. The Rwanda Stock Market turnover dropped by 16.7 Million and 37% in several transactions from 2014 to 2015. It continued to decrease as time goes by. This study anchored on the correlation between the firm value and dividend policy among the firms quoted at the Rwanda Stock Exchange. The study exercised financial reports from listed companies and the Rwanda stock exchange website for the financial period from 2015 to 2019. It is built on four theories such are; Agency theory, Bird-in-hand theory, and the Signaling theory of dividends. Panel regression model and descriptive statistics utilized to sort out the correlation between the variables. The study concludes that firm profitability, financial leverage, and shareholders' funds are positively correlated on the dividend policy at a significant level of 5%. Firm size is inversely correlated to determine the dividend policy at an insignificant level of 5%. It recommends that firm management should consider increasing the firm's sales and reduce its annual expenditure. Secondly, both the stock market and firm management should consider the signaling theory of dividend to improve companies' market value.

KEYWORDS: Dividend Policy, Firm Size, Financial Leverage, Firm Profitability, Owners' Equity.

Received 06 Feb, 2021; Revised: 18 Feb, 2021; Accepted 20 Feb, 2021 © The author(s) 2021.
Published with open access at www.questjournals.org

I. INTRODUCTION

1.1 Background of the study

The stock exchange is a platform where securities, like share stocks, bonds, and other financial instruments got purchased and sold. Bonds are being traded Over-the-counter (OTC). Some corporate bonds can be patronized on stock and security exchanges. The stock and security exchange allows firms to raise capital and investors to draw informed decisions using real-time price information. The exchange would be a physical location or virtual trading. Generally, people are typically accustomed to in-person trading. However, these days many exchanges use computerized trading. The publicly listed companies must adhere to the standards and protocols as set by the regulating bodies. This means that companies regularly publish financial statements to help out the relevant stakeholders in decision making.

The dividend policy can be determined by a couple of factors such as company profitability, firm size, liquidity, firm leverage, and owners' fund. Profitability is taken as the most preferred factor to determine dividend policy (Magambo, 2016). Companies may decide to pay cash dividends or issue their common stock to their common shareholders. Dividend policy has potential implications on share prices (Press & Review, 2009). In a certain firm, It should solve the problem-related dividend distribution or re-invest the profit to support company growth. It is a decision that locates the part of profits to shareholders of the company and retains the other part for reinvestment. Every investor targets a return from his/her investment (Lumapow & Tumiwa, 2017) since it can maximize shareholders' wealth (Nnadi et al., 2013). Priya & Mohanasundari (2016) argued

that managers should be aware of how to maximize the shareholder's wealth. Hence managers must make good decisions related to investment and financing.

One can say that dividend policy is really one of the crucial research topics in the finance literature (Modigliani, 1982). Many studies are still being conducted due to various debates on the impact of dividend policy and firm value. Researchers have divided opinions on dividend policy. Some believe that it is relevant while others consider it as irrelevant. The divided conclusions on dividend policy motivated us to conduct a study on dividend policy and the firm value of the companies listed at the Rwanda Stock Exchange. Saini et al. (2018) argued that dividends are important for they influence the perceptions of the investors about the future earnings and risk of the company.

The Rwanda stock exchange was established on 7th October 2005 to regularize the financial market operations. The exchanges started for trading from the 31st January 2011 after the transition followed Rwanda over the counter exchange that had been running since 2008; its first transactions includes bonds selling. Later in 2014, it grew its operations with the five listed companies made of local and East African companies. Today, The Rwanda Stock Exchange is made of 10 companies such as Bank of Kigali, Bralirwa, National Media Group, Uchumi Supermarket Ltd, Equity Bank Group Ltd, Crystal Telecom, I&M Bank Rwanda, Kenya Commercial Bank, CIMERWA PLC, and RH Bophelo Ltd.

Rwanda Stock Exchange was established to become a big contributor to economic development and lead Rwanda to a regional Financial centre Status. Its main mission is to facilitating easier fundraising for companies and warranting more sustained investments for the public. Rwanda Stock Exchange wants to keep a fair and transparent market mechanism to shield shareholders' rights and support a flourishing economy. It may also facilitate the issues of financial securities and financial instrument, redemption of them, and capital events like income and dividends payment. Dividend policy would be one of the ways that should be used to maximize the shareholders well-off and the firm's value. The main obstacle for many companies is to know the right ratio of profit that should be grasped for further investments or to be allocated to shareholders as a dividend. One can say that dividend policy is a matter of balancing shareholders and the companies' objectives.

The Rwanda stock Market dropped by 16.7 Million and 37% of its several transactions from 2014 – 2015. It kept on reducing as time goes by. Hence many studies should be conducted to contribute to existing literature and figure out what is going on wrong. Moreover, no investigation has been carried out to determine the links between firm value and dividend policy of companies listed at the Rwanda stock exchange. This study provides a clear picture of the effect of firm size, profitability, financial leverage, and shareholders' funds on dividend policy among companies quoted at the Rwanda Stock Exchange.

II. LITERATURE REVIEW

This section comprises theories underpinning the study like Agency theory, Bird-in-hand theory, and Signalling theory and other related empirical review.

Theoretical Review

Agency Theory: This was suggested by Jensen & Meckling (1976). The theory came into existence to handle the problems between the firm management and its shareholders. It proposes that the business entity should be governed based on a separate legal entity. It says that except profits are disbursed to shareholders; they may be diverted to managers for individual use or allocated in non-profitable investments that would generate private benefits. Managers are being taken as the agents while shareholders are taken as the principal. Modigliani and Miller's approach of irrelevance theory proposes that there is no dispute between directors and shareholders (Budagaga, 2017). However, this hypothesis is really doubtful. In fact, it may not continue since the directors' and shareholders' interests are separate. For example, managers would claim to get paid a high salary, and owners get motivated in well-of maximization. Though, shareholders' profit is being maximized when the firm has maximized its profit. This implies that shareholders prefer dividends over profit. Rozeff (1982); and La Porta et al.(2000) unanimously propose that companies that pay out high dividends would enhance their value by reducing funds available to the management. The theory commentary for dividends has been bolstered by preceding experimental studies (Rozeff, 1982). Moreover, Easterbrook (1984) affirmed that high dividends diminish the ready cash flow for managers, and managers would be trusted when collecting funds from external sources. Investors can restrict the management from acting in personal interest besides watching them at a small cost. To handle all the conflicts between the agent and owners, owners are advised to hire a qualified external auditor to examine the true and fair view of the company's affairs and give incentives that would praise employees' hard work(Ngoboka, 2020).

Bird-in-hands theory: The theory came into existence by Lintner (1956) and has supported by different researchers like Gordon (1959) in response to the Dividend irrelevance theory by Modigliani-Miller (1961). Modigliani-miller's theory of irrelevance suggests that investors are mediocre to whether dividends or capital

gain increase the returns from holding stock. The theory of bird in hands lies on some assumptions that the firm is being financialized by equity, not debt financialization, retaining earnings is the only source of finance, cost of capital in the company is stagnant, and finally, there is no corporate tax. The theory proposes that there is a link between the dividend policy and the value of the firm. Saini et al. (2018) suggested that dividends are crucial for they have the informational value that would attract new investors. Once the dividends are announced; they can influence investors' perception of the future earnings. The value of the firm is maximized due to the dividends paid out. In this theory, investors chose dividends over capital gain. This means that Investors would prefer dividends in the present when a company generates high earnings, for the future capital gains are more hazardous. However, the theory has been reprimanded for not affecting the cost of capital, and investors are only engaged in returns.

Signalling Theory: The theory was brought up by Fama & French (1969). It believes that the company management has a lot of secret knowledge on the firm's value, the present and future condition compare to outsiders; they employ dividend pay-out to convey an important message to the financial market regarding the profit and the company growth (John and Williams, 1985). According to this hypothesis, a company has to pay high dividends to attract market attention and improve the firm's prospects (Dionne & Ouederni, 2010). This sounds like good news to investors (Inyama, & Okwo, 2015). Managers are really curious about the signal of revenue distribution over time (Lintner, 1956). Hence dividend pay-outs may act as a signal of a company's financial health (Bhattacharya, 1979), sends out a signal that can affect investor's opinion (Fairchild, 2010), and influence the stock price and the firm's returns (Priya & Nimalathan, 2013). The Signalling theory implies that the removal or decrease of dividends pay-out seems to be extreme disfavor by financial markets (Hobbs, 2006). The signaling hypothesis supports that investors and analysts can see whether the company's manager delivers positive information to mislead the market to gain more profits within a short period (Salih, 2010).

Empirical Review

The dividend policy decisions of companies are the primary element of corporate policy (Mauwa, 2016). (Nissim & Ziv, 2001) defines dividend policy as the ordinances and guidelines that guide a firm to decide how much dividend payment to investors. A dividend is a part of the profit given to shareholders in recognition of their investments made in the company. These factors; financing limitation, investment opportunities, firm size, investors' influence, and managerial of regimes and thorough might determine dividends. Dividend pay-out is a source of income to the firm's investors, but it also offers information about the firm performance. The pattern of corporate dividend policies diversifies over time, but also from country to country. Both public and private companies face the same challenge when concluding how to conclude the appropriate amount of dividends to be paid to shareholders and choose whether to pay cash or distribute them in shares (Davidson, 1990).

Agyei & Marfo-Yiadom (2011); investigated the association between dividend policy and the banks' performance in Ghana. This examination employed panel data extracted from the financial statements of 16 commercial banks operating in Ghana for a period range between 1999-2003. The judgments concluded that financial leverage, bank size, and bank growth improve banks' performance. Generally, the outcomes match with earlier studies that dividend policy influences firm value.

Musonera & Safari (2008) demonstrated that the Rwandan Stock Exchange encounters many challenges that may stack the development of the stock market. Adediran & Alade (2013) also studied dividend policy and corporate profitability. (Mwangi et al., 2014) examined capital structure and financial performance of non-financial companies listed at the Nairobi Securities Exchange (NSE). Ongore (2011) studied the corporate governance and the financial performance of listed companies in Kenya. Vintila & Nenu (2015) examined the determinants of the financial performance of the Bucharest Stock Exchange. All these studies above concluded that the financial performance of companies varies over time as the profits fluctuate. Some firms receive high profits while others register drops and some losses due to the various factors (Mauwa, 2016).

Anton (2016) examined the consequence of dividend policy on firm value. He sampled 63 non-financial companies listed at the Bucharest Stock Exchange over the period from 2001-2011. The fixed-effects model was employed, and findings showed that the dividend payout positively influences firm value after controlling other firm-specific variables. Besides, Financial leverage and firms' size positively correlated with the firm value.

Evelyn F. (2016) assessed the dividend policy determinants for firms listed at Dar Es Salaam Security exchange (DSE); correlation analysis got employed to sort out the link between the dependent and independent variables. Lumapow & Tumiwa (2017) investigated the force of dividend policy, Firm size, and productivity to influence the Firm value. Panel data regression with a random effect model gets adopted in numerical analysis. The study findings revealed that the dividend negatively and significantly affects the firm value. The Firm size and productivity impact the firm value at a significant influence.

A firm may choose to pay cash dividends in a semester, yearly, or declare bonus shares. Erasmus (2013) demonstrated that it is not only the number of attractive dividend payments but its stability for a

considerable period. Priya & Mohanasundari (2016) also states that the inconsistent dividend policy may have an unfavorable perception in the financial markets. In the absence of routine and precise corporate reporting, dividends get invested to clutch earnings, and often it is witnessed as better proof of corporate performance. Though, some researchers claimed that dividend policy would be trivial to investors as financial markets became effective. Therefore, dividend policy outlook still suspects, and further studies need to be carried out.

Naceur & Goaid (2002) considered the relationship between dividend policy, financial structure, profitability, and Firm Value. To find out the determinants of the value creation of the selected companies on the Tunisia stock exchange, it uses the random probity model estimation procedure with unbalanced panel data. The study concluded that the probability of creating future values has a positive and significant effect on the profitability factors. The results also propose that value creation is affected by industry patterns such as; the size and nature of assets. It also demonstrated that the time trend is positive and significant. It ended up by advising that the progressive amelioration of the Tunisian stock exchange has attracted new investors.

Ismawati (2018) researched the effect of capital structure and dividends policy on the firm value listed at the Indonesian stock exchange. It employed the panel regression model. The outcomes revealed that the capital structure impacts the value of the Firm. However, dividend policy had no significant impact on the value of the firm. The judgments support signaling theory where companies with rapid growth attract investors. The small dividends do not show a huge impact on improving the value of the company. Therefore the change in dividend policy significantly indicates a change in firm value. Financial managers need to maximize the value of the firm and the shareholders well off (Priya & Mohanasundari, 2016). According to Barman (2008), dividends are the principal sign of share price, and share price is the essential indication of the firm value and maximization of shareholders' wealth. In case an organization makes profits will determine which part of the profit for investment in a new portfolio and distribute the remaining profit to shareholders as a dividend.

III. RESEARCH METHODOLOGY

The prime aim of this research study is to establish the association between firm value and dividend policy. In response to this objective, the annual audited financial statements for the period 2015 – 2019 were gathered and analyzed. It targeted eight companies listed at the Rwanda Stock exchange as of December 2019. A Descriptive research design has been used to figure out the real and fundamental factors to the study problem. The panel regression model has been adopted to lead this study as it comprises a time series and cross-sectional data. The variables measurement was based on the preceding study of the subject. In this case, the pay-out ratio got used to measuring the dividend policy as a dependent variable. The ROE, debt ratio, equity ratio, and the logarithm of total assets got employed to measure the independent variables (firm profitability, leverage, shareholders fund, and firm size consecutively)

3.1 Model description

Model with p explanatory factors is indicated as follows

$$Y_i = \varphi_1 X_{1i} + \varphi_2 X_{2i} + \varphi_3 X_{3i} + \dots + \varphi_p X_{pi} + \varepsilon_i = \sum_{j=1}^p X_{ji} \varphi_j + \varepsilon_i$$

Where Y_i is dependent or explained variable, $X_{1i} + X_{2i} + \dots + X_{pi}$ are regressor variables or explanatory factors. The first explanatory factor is the constant $X_{1i} = 1$. We do not know φ_j and ε_i we have observations on X_{ji} and Y_i . Let consider k observations for all variables, let

Y : ($k \times 1$) vector with component Y_i ,

X : ($k \times p$) matrix with elements X_{ji} ,

φ : ($p \times 1$) vector with component φ_i ,

ε : ($k \times 1$) vector with component ε_i .

The model can be written as:

$$Y = X\varphi + \varepsilon$$

Where $X\varphi$ is explained part of Y , and ε is unexplained part of Y . X explains much of Y if Y is approximately equal to $X\varphi$ for some choices of φ . Hence $Y = X\varphi$ is a set of equations in p unknown parameters φ . Due to well-known dimension of observed data and unobserved data, the aim is to estimate φ by ($p \times 1$) vector b such that Xb is closer to Y . Therefore, the small vector of residuals is obtained by

$$Y - Xb = \varepsilon = \begin{pmatrix} \varepsilon_1 \\ \cdot \\ \cdot \\ \cdot \\ \varepsilon_k \end{pmatrix}$$

Least squares criterion could be

$$s(b) = \varepsilon' \varepsilon = \sum_1^k \varepsilon_i^2 = Y'Y - 2bX'Y + b'X'Xb$$

$$\frac{\partial s(b)}{\partial b} = -2X'Y + 2X'Xb = 0$$

This implies $b = (X'X)^{-1}X'Y$

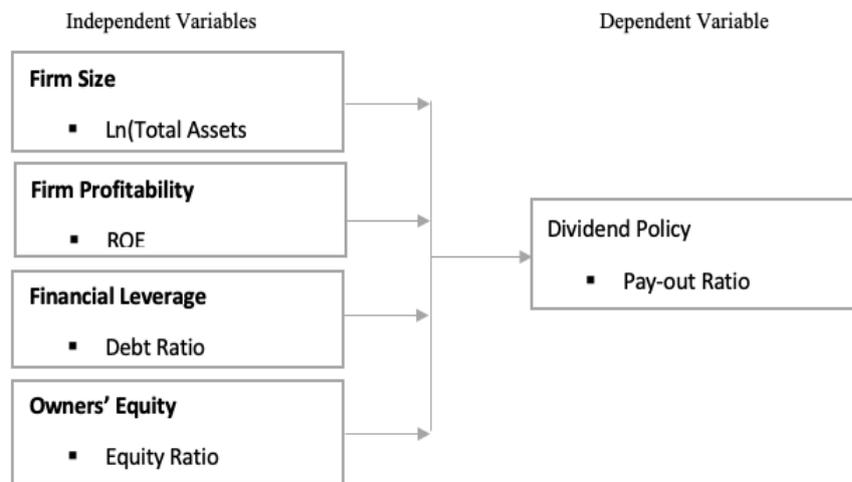
The R-squared (R^2) is computed as follows

$$R^2 = (cor(Y, \hat{Y}))^2 = \frac{(\sum_{i=1}^k (Y_i - \bar{Y})(\hat{Y}_i - \bar{\hat{Y}}))^2}{\sum_{i=1}^k (Y_i - \bar{Y})^2 \sum_{i=1}^k (\hat{Y}_i - \bar{\hat{Y}})^2}$$

With correlation coefficient cor and $\hat{Y}_i = Xb$. Higher R^2 means better fit of Xb to observe Y . If the model contains constant term ($X_{1i} = 1$ for all $i = 1, 2, \dots, k$)

$$R^2 = 1 - \frac{\varepsilon' \varepsilon}{\sum_{i=1}^k (Y_i - \bar{Y})^2}$$

3.2 Conceptual Framework



IV. NUMERICAL RESULTS AND DISCUSSION

4.1. Descriptive Statistics

A descriptive statistic has been conducted to unveil the feature aspects of the variables. This table exhibits the variables' characteristics since it manifests the standard deviation, minimum and maximum, mean, and observations.

Table 4.1. Descriptive statistics

	Variable	Mean	Std. Dev.	Min	Max	Observations
DP	overall	55.588	54.888	-84.634	292.618	N = 35
	between		22.048	37	92.022	n = 7
	within		50.831	-107.579	269.673	T = 5
FP	overall	16.35	7.779	-7.033	25.497	N = 35
	between		7.042	2.416	22.311	n = 7
	within		4.094	6.902	24.574	T = 5
LEV	overall	62.472	31.705	0.11	86.549	N = 35
	between		33.709	0.227	86.124	n = 7
	within		1.607	59.387	67.803	T = 5
OE	overall	37.615	31.683	13.45	99.89	N = 35
	between		33.693	13.878	99.773	n = 7
	within		1.482	32.284	40.727	T = 5
FS	overall	18.881	1.552	16.231	20.742	N = 35
	between		1.644	16.291	20.432	n = 7
	within		0.153	18.531	19.192	T = 5

Source: Author (2021)

Table 4.1 above presents a summary of panel data statistics grabbed from 7 companies quoted at the Rwanda Stock Exchange as of December 2019. It shows a balanced panel data of 35 observations in a time-bound of 5 years. It shows that the Pay-out overall mean for all the 7 companies is 55.588, the overall mean profitability stands at 16.35, the overall mean of leverage is 62.472, equity was 37.615, and the overall mean of firm size stands at 18.881.

4.2. Diagnostic Test

A set of diagnostic test was conducted to ensure the appropriate model to analyse the variables mentioned in the conceptual framework.

Table 4.2 Correlation Matrix

Variables	(1)	(2)	(3)	(4)	(5)
(1) DP	1.000				
(2) FP	-0.020	1.000			
(3) LEV	-0.336	0.696	1.000		
(4) OE	0.338	-0.703	-1.000	1.000	
(5) FS	-0.354	0.552	0.867	-0.869	1.000

Source: Author (2021)

The table 4.2 presents the matrix correlation between the variables. The findings show that the correlation between dividend policy and firm profitability is -0.020, and leverage -0.336, and owners' equity 0.338, and firm size -0.354. This means that except equity financing has a positive correlation to determine dividend policy, other factors like debt financing, profitability, and firm size are negatively correlated to determine the dividend policy. The correlation between firm profitability and leverage is 0.696, the owners' equity is -0.703, and firm size stand at 0.552. This implies that a change of one unit in financial leverage, equity finance, and firm size will make profitability change by 0.696, 0.703, and 0.552 consecutively. The correlation between leverage and equity is negative one. This implies that an increase of one unit in leverage will result to a decrease in owner's equity by one unit, and vice versa. The correlation between leverage and firm size stands at 0.867. It means that a one unit change in leverage will result in a change of 0.867 in firm size. In the end, the Equity ratio is negatively correlated to the firm size. This means that a one-unit change in equity finance will make the firm size reduce by 0.869.

Table 4.3. Skewness and Kurtosis Tests for Normality

Variable	Obs	Pr(skewness)	Pr(kurtosis)	Adj chi2(2)	Prob>chi2
DP	35	0	0	24.97	0
FP	35	0.003	0.171	8.97	0.011
LEV	35	0.007	0.774	6.62	0.036
OE	35	0.007	0.767	6.58	0.037
FS	35	0.124	0.013	7.5	0.024

Source: Author (2021)

This table 4.3 demonstrates the normality distribution of the data collected. The findings from the skewness and kurtosis test revealed that; we can fail to reject the null hypothesis that dividend policy, firm profitability, financial leverage, owners' equity, and firm size have distributed normally. The custom rule of kurtosis says that a kurtosis variable equal to three is normally distributed and called mesokurtic. A kurtosis variable below three and above three are platykurtic and leptokurtic consecutively. Based on the normality test, the pooled regression model is not appropriate for this examination. However, the Fixed and Random effect model should be adopted.

Table 4.4. Cameron & Trivedi's decomposition of IM-test

Source	chi2	df	p
Heteroskedasticity	12.36	12	0.417
Skewness	5	4	0.288
Kurtosis	1.55	1	0.213
Total	18.91	17	0.334

White's test for Ho: homoskedasticity

against Ha: unrestricted heteroskedasticity

chi2(12) = 12.36

Prob > chi2 = 0.4170

Source: Author (2021)

Heteroskedasticity assumptions sometimes may violate the regression model that could cause the findings and standard error to be biased (Ngoboka, 2020). The higher chi-square indicates the presence of heteroskedasticity. In this case, the chi-square is 12.36 with a probability of 0.4170. This study employed a Robust standard error to relax heteroskedasticity's assumptions (Williams, R. 2020).

Table 4.5. Hausman specification Test

	Fixed (b)	Random (B)	Difference (b-B)	sqrt(diag(V_b-V_B))S. E.
FP	5.834606	4.063027	1.771579	1.752528
LEV	17.91772	19.1311	-1.213381	6.947175
OE	20.23749	20.38906	-0.1515694	7.968155
FS	52.58654	-0.8583825	53.44492	60.92209

b = consistent under Ho and Ha; obtained from xtreg

B= inconsistent under Ha, efficient under Ho; obtained from xtreg

Test Ho: difference in coefficients not systematic

$$\chi^2(4) = (b-B)'(V_b - V_B)^{-1}(b-B)$$

$$= 1.95$$

$$\text{Prob} > \chi^2 = 0.7459$$

Source: Author (2021)

The table 4.5. shows the Hausman specification results. It discloses a p-value of 0.7259 above the level of significance and a Chi-square of 1.95. This implies that the Random effect is appropriate to analyse the panel data. However, the robust was conducted to solve the homoskedasticity problems. The random model (Robust) results shown in the table below:

Table 4.6. Random Effect Model (Robust)

DP	Coef.	St. Err.	t-value	p-value	[95% Conf. Interval]	Sig
FP	4.063	1.892	2.15	0.032	0.355	**
LEV	19.131	7.349	2.60	0.009	4.727	***
OE	20.389	7.923	2.57	0.010	4.861	**
FS	-0.858	6.867	-0.12	0.901	-14.318	
Constant	-1956.730	893.021	-2.19	0.028	-3707.018	**
Mean dependent var			55.588	SD dependent var		54.888
Overall r-squared			0.258	Number of obs		35.000
Chi-square			164.886	Prob > chi2		0.000
R-squared within			0.171	R-squared between		0.842

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Source: Author (2021)

From the findings in table 6, this model could be formulated.

$$DP = -1956.73 + 4.06 FP + 19.13 LEV + 20.389 OE - 0.86 FS$$

Where:

DP: Dividend Policy

FP: Firm Profitability

LEV: Financial Leverage

OE: Owners' equity

FS: Firm Size

This model of random effect model (robust) reports that except the firm size, other factors (firm profitability, financial leverage, and shareholders' funds) have a direct and positive effect in the determination of dividend policy at a significant level of 5%. This signifies that an increase of one unit in firm profitability, financial leverage, and shareholder's funds will increase the dividend by 4.06, 19.13, and 20.39 consecutively, and vice versa. It proposes that we may reject the null hypothesis that the firm profitability, firm leverage, and shareholders' funds have no significant effect on dividend policy. However, the firm size has an inverse and insignificant correlation on dividend policy. This indicates that an increase of one unit in firm size reduces the dividend pay-out by 0.86. It implies that we may fail to reject the null hypothesis that the firm size has no significant effect on dividend policy.

Table 4.7. Summary of Hypothesis

Hypothesis	P-Value	Decision
H0 ₁ : Firm Size has no Significant influence to determine Dividend policy	0.032	Reject
H0 ₂ : Firm Profitability has no significant influence to determine Dividend policy	0.009	Reject
H0 ₃ : Financial Leverage has no significant influence to determine Dividend policy	0.010	Accept
H0 ₄ : Shareholders' Fund has no significant influence to determine Dividend policy	0.901	Reject

Source: Author (2021)

V. CONCLUSION AND RECOMMENDATION

The prime objective of this examination was to assess the association between firm value and dividend policy of the companies listed at the Rwanda Stock Exchange. Based on the study verdicts, one can say that, among the four independent variables chosen as the determinants of dividend policy, three of them: firm profitability, financial leverage, and shareholders fund have a significant positive relationship with the dependent variable at a level of 5%. This means that we may reject the null hypothesis that the firm profitability, shareholders fund, and firm leverage have no significant effect to determine the dividend policy. Therefore, we may fail to reject the null hypothesis that the firm size has no significant effect on dividend policy. From the study findings, the examiner concluded that dividend policy among the listed companies in Rwanda is being determined by these factors profitability, the capital contributed from shareholders and financial debts. This implies that a firm that can generate high profitability is likely to pay a high dividend in recognition of its investors.

Based on the conclusion above these recommendations should be drawn. Since there is a positive relation between firm profitability and dividend policy, firm management is recommended to improve company sales and lower its expenditures. Secondly, both stock market regulators and the managers are advised to enforce the signalling theory of dividend since the firm needs to improve its market value. In the end, given the fact that financial leverage has a positive significant effect to determine the dividend policy. The researcher advises the firm management not to rely on debt finance but considers increasing shareholders' funds and other kinds of internal financing. Future researchers are advised to consider other factors that determine the dividend policy like liquidity, age of the corporation, and type of industry. Since this study has used quantitative data, future researchers are advised to consider qualitative.

REFERENCE

- [1]. Adediran, S. A., & Alade, S. O. (2013). Dividend policy and corporate performance in Nigeria. *American Journal of Social and Management Sciences*, 4(2), 71–77.
- [2]. Agyei, S. K., & Marfo-Yiadom, E. (2011). Dividend policy and bank performance in Ghana. *International Journal of Economics and Finance*, 3(4), 202.
- [3]. Anton, S. G. (2016). The impact of dividend policy on firm value: A panel data analysis of Romanian listed firms. *Journal of Public Administration, Finance and Law*, 10(10), 107–112.
- [4]. Baker, H. K., Powell, G. E., & Veit, E. T. (2002). Revisiting the dividend puzzle. Do all of the pieces now fit? *Review of Financial Economics*, 11(4), 241–261. [https://doi.org/10.1016/S1058-3300\(02\)00044-7](https://doi.org/10.1016/S1058-3300(02)00044-7)
- [5]. Barman, G. P. (2008). *An evaluation of how dividend policies impact on the share value of selected companies*.
- [6]. Budagaga, A. (2017). Dividend Payment and Its Impact on the Value of Firms Listed on Istanbul Stock Exchange: A Residual Income Approach. 7(2), 370-376.
- [7]. Dionne, G. & Ouederni, K. (2010). Corporate Risk Management and Dividend Signaling Theory. *Working Paper 10-08*. CIPREE.
- [8]. Easterbrook, F.H., (1984) “Two Agency-Cost Explanations of Dividends”, *American Economic Review*, Vol. 74, No. 4, pp: 650-9
- [9]. Erasmus, P. (2013). The influence of dividend yield and dividend stability on share returns: Implications for dividend policy formulation. *Journal of Economic and Financial Sciences*, 6(1), 13–31.
- [10]. Hobbs, J. C. (2006). *Dividend Signaling and Sustainability*. Unpublished Dissertation. Virginia Polytechnic Institute and State University.
- [11]. Magambo, E. F. (2016). Determinants of Dividend Policy for Companies Listed at Dar Es Salaam Security Exchange (DSE), a Case of Selected Listed Companies. *Journal of Finance and Accounting*, 4(4), 202. <https://doi.org/10.11648/j.jfa.20160404.16>
- [12]. 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.
- [13]. Ismawati, L. (2018). The Influence of Capital Structure and Dividends Policy to Firms Value Listed at Indonesian Stock Exchange. *International Conference on Business, Economic, Social Science and Humanities (ICOBEST 2018)*.
- [14]. Jean Paul Hakizakubana Ngoboka et Al. (2020), “Camel Rating System and Financial Performance of Rwandan Commercial Banks.” *IOSR Journal of Economics and Finance (IOSR-JEF)*, 11(6), 2020, pp.02-13.
- [15]. Jensen, M. C. & Meckling, W. H. (1976) Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure. *Journal of Finance and Economics* 3(4), 305-360.
- [16]. La Porta, R., Lopez-de-Silanes, F., Shleifer, A., Vishny, R. W. (2000), Agency Problems and Dividend Policies Around the World. *The Journal of Finance*, 55(1), 1-33.
- [17]. Lintner, J. (1956), Distribution of incomes of corporations among dividends, retained earnings, and taxes. *The American Economic Review*, 46(2), 97-113.
- [18]. 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. <https://www.iiste.org/Journals/index.php/RJFA/article/view/39880/40994>
- [19]. Mauwa, J. (2016). *Determinants of Financial Performance of the Firm Listed on the Rwanda Stock Exchange (Business Administration) Jomo Kenyatta University of Agriculture and Technology*.
- [20]. Miller, M. H. & Modigliani, F. (1961). Dividend Policy, Growth and Valuation of Shares. *Journal of Business*, 34: 411-433
- [21]. Modigliani, F. (1982). Debt, Dividend Policy, Taxes, Inflation and Market Valuation. *The Journal of Finance*, 37(2), 255–273. <https://doi.org/10.1111/j.1540-6261.1982.tb03549.x>
- [22]. Musonera, E., & Safari, V. (2008). Establishing a Stock Exchange in Emerging Economies: Challenge and Opportunities. *The Journal of International Management Studies*, 3(2).
- [23]. Mwangi, L. W., Makau, M. S., & Kosimbei, G. (2014). Relationship between capital structure and performance of non-financial companies listed in the Nairobi Securities Exchange, Kenya. *Global Journal of Contemporary Research in Accounting, Auditing and Business Ethics*, 1(2), 72–90.

Dividend Policy and Firm Value: A Study of Companies Quoted At the Rwanda Stock Exchange

- [24]. Naceur, S. Ben, & Goaid, M. (2002). The relationship between dividend policy, financial structure, profitability and firm value. *Applied Financial Economics*, 12(12), 843–849. <https://doi.org/10.1080/09603100110049457>
- [25]. Nissim, D., & Ziv, A. (2001). Dividend changes and future profitability. *The Journal of Finance*, 56(6), 2111–2133.
- [26]. Nnadi, M., Wogboroma, N., & Kabel, B. (2013). Determinants of dividend policy: Evidence from listed firms in the African stock exchanges. *Panoeconomicus*, 60(6), 725–741. <https://doi.org/10.2298/PAN1306725N>
- [27]. Ongore, V. O. (2011). The relationship between ownership structure and firm performance: An empirical analysis of listed companies in Kenya. *African Journal of Business Management*, 5(6), 2120–2128.
- [28]. Press, T. M. I. T., & Review, T. (2009). *Dividends , Earnings , And Stock Prices*. 41(2), 99–105.
- [29]. Priya, K. & Nimalathasan, B. (2013). Dividend Policy Ratios and Firm Performance: a case study of Selected Hotels & Restaurants in Sri Lanka. *Global Journal of Commerce and Management*, 2(6), 16-22.
- [30]. 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.
- [31]. Rozeff, M. (1982) Growth, Beta and Agency Cost as Determinants of Dividends Payout Ratios. *The Journal of Financial Research*, 5.(3), pp.249-259 .
- [32]. RSE Report (2019). Annual Report. Retrieved from: https://www.rse.rw/IMG/pdf/rse_-_annual_report_2019.pdf
- [33]. Saini, J. R., Vidya, B., & Delhi, N. (2018). *Dividend Policy & Firm Value*. April. <https://doi.org/10.13140/RG.2.2.16164.78724>
- [34]. Salih, A. A. (2010). The Effect of Dividend Policy on Market Value: UK Empirical Study, Durham theses, Durham University. Available at Durham E-Theses Online: <http://etheses.dur.ac.uk/556/>
- [35]. Taneem, S., & Yuce, A. (2011). Information content of dividend announcements: An investigation of the Indian stock market. *International Business & Economics Research Journal (IBER)*, 10(5), 49–58.
- [36]. Vintila, G., & Nenu, E. A. (2015). An Analysis of determinants of corporate financial performance: Evidence from the bucharest stock exchange listed companies. *International Journal of Economics and Financial Issues*, 5(3).
- [37]. Williams, R. (2020). Heteroskedasticity. University of Notre Dame. Retrieved from: <https://www3.nd.edu/~rwilliam/stats2/l25.pdf>