



Leverage and Dividend Policy: Evidence from the Indonesian Stock Exchange

Dhani Ichsanuddin Nur ^{a*}

^a *Department of Economic Management, Faculty of Economics and Business,
Pembangunan Nasional "Veteran" University, Surabaya, Indonesia.*

Author's contribution

Author DIN contributed to concepts, design, literature search, data analysis, manuscript preparation, manuscript editing. Author DIN read and approved the final version of the submitted manuscript.

Article Information

DOI: 10.9734/JEMT/2023/v29i51090

Open Peer Review History:

This journal follows the Advanced Open Peer Review policy. Identity of the Reviewers, Editor(s) and additional Reviewers, peer review comments, different versions of the manuscript, comments of the editors, etc are available here: <https://www.sdiarticle5.com/review-history/96025>

Original Research Article

Received: 09/01/2023

Accepted: 13/03/2023

Published: 20/03/2023

ABSTRACT

Aims: This research aims to determine the effect of ownership based on managerial and institutional on the leverage and corporate dividends.

Study Design: We analyzed the correlation between leverage and dividends interaction in several companies listed on the Indonesian Stock Exchange.

Methodology: Some hypotheses were created and then tested using an equation model. Some equations used in this model can generate an equation system that can describe the variables' dependencies. Furthermore, the two-stage least square (TSLS) method was used as the estimation technique.

Results: A high level of managerial ownership can decrease leverage and corporate dividend payments. Also, high external capital is needed to increase dividend payments to achieve high asset growth.

Conclusion: In contrast, high sales growth can decrease the leverage, but increased profitability may lower the dividend payments. Using high force means reducing dividend payments. This

*Corresponding author: E-mail: dhani_inur@yahoo.com;

research provides information and data as a basis for consideration, support, and sources of thought to management as decision-makers to improve company performance and business development. This research implies that companies can use it as a reference in making financial decisions about the company's business strategy to improve its performance to have a competitive advantage and avoid financial distress.

Keywords: Dividend; institutional ownership; leverage; managerial ownership; payment.

1. INTRODUCTION

Many issuers on the Indonesia Stock Exchange face debt problems whose major issuers have a leverage level (debt ratio) above 100% [1]. This situation leads a company to carry out its financial obligations as a significant interest expense due to a large debt. Besides, most issuers do not distribute dividends to the shareholders even though the company can profit. Meanwhile, signal theory explains that earnings information and dividend announcements can provide signals or information to investors about the company's prospects in the future, especially in obtaining profits [2].

Some companies in Indonesia tend to have concentrated share ownership. According to Khamis et al. [3], a focused ownership structure will create conflict between majority and minority shareholders. Thus, it has the potential to affect the company's performance. It is possible for majority shareholders to efficiently use their power for personal gain at the expense of minority shareholders.

Share ownership by the management will parallel the interest between the control and external ownership so that the managers will reduce the debt level as they increase their company ownership. Managerial and institutional ownership can affect the fund-seeking policy and whether the company chooses debt or a rights issue (a new stock issued with priority over the old shareholders). Institutional ownership correlates with the company's debt-funding level and managerial capital ownership level. Thus, institutional investors function as monitoring agent that effectively helps to reduce agency costs [4,5]. The presence of external monitors acts to constrain the opportunistic behavior of the management.

Investors or prospective investors should learn about financial theories and their application to debt and dividend policies. It is also essential for creditors to have knowledge considering

providing financial support in the form of loans. The assessment of the use of financial statements should be regularly carried out so the company can analyze the factors which affect the debt or leverage decision and the company dividend policies. The present study was conducted to determine the effect of the share ownership structure on corporate leverage and dividends, the development of company characteristics on corporate leverage and dividends, and the interaction between power and dividends. The study does not solely use the elements of the structure of stock ownership, debt policy, and dividend policies that can reduce agency problems. At the same time, it analyzes the interrelationships between leverage or capital structure and corporate dividends. Thus, institutional investors can effectively monitor the company management so that there is a tendency to a lower debt level. An increase in managerial ownership can lessen the role of debt to reduce agency problems.

This study is critical because (1) many issuers on the Indonesia Stock Exchange are currently facing debt problems. This is indicated by several issuers having leverage levels above 100%. This situation shows the magnitude of management's risk in carrying out its financial obligations, and (2) most issuers on the Indonesia Stock Exchange do not distribute dividends to shareholders even though they can generate profits. This study substantially differs from previous studies in operationalizing the variables used. This research does not solely use the elements of share ownership structure, debt policy, and dividend policy, which can reduce agency problems. Still, it also analyzes the interplay between leverage and company dividends.

2. LITERATURE REVIEW

Jiang and Jiranyakul [6] show that a critical aspect in achieving maximum profit is improving the company's capital structure, considering that companies need several short-term and long-term funds to run their operations. The company

only gains maximum profit when it has a good performance. Investors and prospective investors will be attracted by the return (profit level) that can be expected relative to the company's risk. The company's profit can compensate for the additional risks that emerge. Also, a change in the company's debt will affect its value [7]. Thus, the extent to which the company can fulfill its funding needs from its capital will affect the balance of the capital structure and may increase its value. This indicates the importance of the role of leverage (the use of assets and fund sources that have a fixed burden) on company value.

The capital structure or the use of corporate debt has a vital role for the company in critical and healthy conditions to fund its operations. The decision to increase or decrease leverage or capital structure will have different consequences on future profits. The improvement of company performance is expected to maximize shareholder prosperity to achieve the purpose of profitability and company liquidity. A creditor will be more likely to make a loan if accompanied by more collateral assets to diminish the bankruptcy risk. Because the asset value of a company has a positive effect on funding sources, it can be said that a company with a relatively high asset growth tends to have high debt levels. There must, therefore, be a correlation between the debt level and the value and composition of the assets. A high asset value will mean a high debt level [7-9]. A company with a high growth rate tends to have reasons to pay high dividends.

Profitability can show the company's prospects if managers can manage the company well. When management decides on dividend payments, management needs to consider proper earnings management by estimating the company's needs [10,11]. Dividend policy determines the distribution of profits between dividend payments to shareholders and corporate reinvestment. Dividend payments indirectly result in tighter monitoring of management investment activities so that dividends can contribute to the company's value. Optimal dividend policy will be determined through the marginal costs of dividends and capital gains. This preference will only be reflected in the relative quantity of dividends and capital gains, not the company's value. A high standard deviation in earnings indicates that the company risk is also high, so creditors will be reluctant to give loans to such companies [4,12].

Moreover, a company with a high risk tends to make lower dividend payments. A large company has easy access to the capital markets because it has the flexibility and capability to get more funding for the company until its leverage is high [9,13]. Therefore, the more significant the company, the higher the dividend payments. The sales growth reflects earnings increase, so dividend payments tend to increase. Profitability indicates the ability of the capital invested in all the assets to earn a profit for investors. A company with high profitability has more funds available and quite a significant amount of cash for making dividend payments.

Moh'd et al. [8], Joher et al. [14], Rizqia et al. [15], and Tariq [5] used several factors as study variables, namely dividend payment, growth opportunity, firm size, asset structure, asset risk, profitability, tax rate, non-debt tax shield, and uniqueness. The results of their studies indicated that the share ownership structure has adverse and significant effects on the debt ratio, while other factors also substantially impact the debt.

Leverage illustrates how big or small the amount of debt a company uses to finance its operational activities or is related to managerial [10,11,16]. Managers will act carefully in decision-making with managerial ownership because they will bear the consequences [17,18]. More institutional ownership is needed to give investors confidence in the company's soundness. Investors need evidence of the positive impact of institutional ownership, especially in monitoring business policies taken by management [17].

3. RESEARCH METHODOLOGY

3.1 Operational Variables

The variables used in this study were as follows:

3.1.1 Endogenous variables

- a. **Leverage**
This variable is used to reflect the company's leverage (debt) policy. Financial leverage is measured as the ratio between short-term debt plus long-term debt and equity, given the symbol LEV [19].
- b. **Dividend payment ratio**
This variable is a ratio used to reflect the company's dividend policy. The payment policy is measured using the dividend payment ratio divided by the earnings after tax and given the DPR symbol [20].

3.1.2 Exogenous variables

- a. **Managerial ownership**
This variable is measured as the percentage of shares owned by managers who actively participate in company decision-making, and it is given the symbol MO [20].
- b. **Institutional ownership**
The institutional ownership variable represents the shares owned by institutions, constituting monitoring agents because of the amounts they invest in the capital markets. It is given the symbol IO [20].
- c. **The Assets growth**
This variable reflects the growth in resources in the form of assets owned by the company, measured as the total assets in period_t less the total assets in period_{t-1}, and it is given the symbol AG [13].
- d. **Earnings volatility**
This variable reflects the variability in the company's earnings and is defined as the coefficient of profit variation; it is measured by using the standard deviation of the net operating earnings divided by the total assets and is given the symbol EV [4].
- e. **Firm size**
This variable is the size of the company, measured using the natural algorithm (ln) of its sales, and is given the symbol FS [4].
- f. **Sales growth**
This variable reflects sales growth, as the manifestation of investment success in the past, and is measured as the sales in a period less the sales in the period_{t-1} divided by the sales in period_{t-1}, and given the symbol SG [21].
- g. **Profitability**
The profitability variable is proxied by Return on Assets (ROA), which indicates the capability of the capital invested in the whole of the company's assets to earn a profit for the company; it is measured by dividing the earnings before tax by the total assets and is given the symbol ROA [22].

3.2 Sampling Method

The population used for the research was all the public companies (issuers) listed on the Indonesian Stock Exchange, except those in the banking and insurance sectors that have financial reports with a different meanings from those of other sectors. The analysis period was from 2006 through 2014.

The sample was selected using the Simple 2 Random Sampling method, which includes a process to select a sampling unit in such a manner that each sampling unit existing in the population has a known opportunity of being chosen for the sample, and this selection opportunity is not zero. The sample size was determined using the formula below:

$$n = \frac{L}{f^2} + k + 1 \quad (1)$$

$$f^2 = \frac{R^2}{1-R^2} \quad (2)$$

Where value n is a whole sample size. L is a from the table with α and p determined. Value k is several exogenous variables. The last is the R^2 value of the estimation of the correlation coefficient. Based on the simple random sampling method above, a sample of 77 companies was included in the study.

3.3 Analysis Method

The data analysis method used in this study was simultaneous with the estimation of the two-stage least square (TSLS) method. TSLS is a method in which several equations form a system that describes the dependencies between the various variables in these equations. The TSLS method is designed for overidentified equations so that simultaneous analysis can be used to answer the research hypothesis. The model should comply with the requirement that it can be identified, and therefore a structural equation model was developed as follows:

$$LEV = \beta_1 + \beta_2 DPR + \beta_3 MO + \beta_4 IO + \beta_5 AG + \beta_6 EV + \beta_7 FS + \epsilon_1 \quad (3)$$

$$DPR = \alpha_1 + \alpha_2 LEV + \alpha_3 MO + \alpha_4 AG + \alpha_5 EV + \alpha_6 FS + \alpha_7 SG + \alpha_8 ROA + \epsilon_2 \quad (4)$$

Where LEV is leverage, DPR is the dividend payment ratio. MO is managerial ownership. IO is institutional ownership. AG is asset growth. EV is earnings volatility. FS is a firm size. SG is sales growth. ROA is the return on assets/profitability. β_i is the parameter coefficient. α_i is the parameter coefficient. ϵ is residual (error term). I am several 1, ..., 9.

$$[LEV DPR] + [MO IO AG EV FS SG ROA] = [\epsilon_1 \epsilon_2] \quad (5)$$

4. RESULTS AND DISCUSSION

This study tested, for companies listed on the Indonesian Stock Exchange, the effects of managerial ownership and institutional ownership on leverage and company dividends, using the conceptual framework of the study:

1. Managerial share ownership influences leverage and company dividends.
2. Institutional share ownership influences leverage.
3. Asset growth, earnings volatility, firm size, sales growth, and profitability influence leverage and company dividend.
4. Leverage and company dividends each affect the other.

To test the proposed hypotheses above, a two-stage least square model was used. The results of the analysis can be summarized in Table 1. The result of the data processing for the effect of the exogenous variables on the endogenous variables in the dividend equation can be seen in Table 2.

4.1 Operational Variables

The size of the regression coefficient between managerial share ownership and leverage level is -0.001091 and the t count is -2.939, with a significance level of 0.0034. The conclusion is that H_0 is rejected and H_1 is accepted. The numbers indicate a significant effect between managerial share ownership and the company's leverage.

The results agree with the theory and are consistent with the research results of Jensen et al. [23], Bathala et al. [4], and Moussa and Chichti [9], that share ownership by managers is related to the use of leveraging. Managerial share ownership negatively influences leverage. Jensen and Meckling [23] stated that if managers have a high degree of ownership in the firm, this will reduce the debt level and will reduce the agency conflict that emerges from the separation of the decision-making function and the risk responsibility function in the firm. Managerial ownership should harmonize the managers' and external shareholders' interests. High managerial ownership of shares enables managers to take a prominent position in the firm to control its leverage policy. If managers own shares, then they directly feel the consequences of the decisions they make so that they no longer act opportunistically. Managerial ownership creates

an incentive for the managers in the company to improve the company performance and use debt carefully, and thus it reduces the agency cost. In addition, the interests of the owner will be close to the managers' if the manager increases the ownership of the shares and then increase the use of debt so it will replace the capital. Thus, managerial ownership and leverage level are integral aspects of managerial decision-making so that the agency is accepted. The numbers indicate that there is a significant relationship between managerial ownership of shares and company leverage.

4.2 Effect of Managerial Ownership on Company Dividend

The regression coefficient between managerial ownership of shares and company dividend is large (-0.01607), and the t count is -2.090, with a significance level of 0.0370, so it can be concluded that H_0 is rejected and H_1 is accepted, with the direction of correlation being negative. This conclusion indicates that managerial ownership has a significant effect on company dividends.

The results of this research agree with the theoretical model and with the previous empirical research published by Jensen et al. [23], Dempsey and Laber [24], and Joher et al. [13]. The results indicate that the higher the percentage of shares owned by the management, the lower the agency cost and the lower the dividend payments. The company can establish a dividend level with low dividend payments, making the management fund the expected investment. Suppose this can be done by the managers' projection of future investment opportunities. In that case, the company will get the funding needed internally, eventually decreasing the substantial leverage effect of the managerial ownership of shares and enabling the management to control the dividend policy.

4.3 Effect of Institutional Ownership on Leverage

The regression coefficient between institutional share and leverage is 0.001139, and the t count is 2.653 with a significance level of 0.0082. This concludes that H_0 is rejected and H_1 is accepted, while the correlation direction is positive. Based on the above calculation, the numbers indicate a significant effect between institutional share ownership and leverage. The positive correlation direction does not agree with the conclusion of

Table 1. Results of analysis of leverage equation

Variable	Regression Coefficient	t stat	Sig
C	0.77183	5.594	.0000
DPR	-0.001131	-3.773 *	.0039
MO	-0.001091	-2.939 *	.0034
IO	0.001139	2.653 *	.0082
AG	0.021316	2.723 *	.0035
EV	-0.000125	-2.951	.0033
FS	0.019013	4.023	.0001

Table 2. Results of analysis of leverage equation

Variable	Regression Coefficient	t stat	Sig
C	115.09913	6.272	.0000
LEV	-18.88513	-2.067 *	.0391
MO	-0.01609	-2.090 *	.0370
AG	1.83305	1.658 **	.0925
EV	-0.02498	-1.998 *	.0482
FS	1.34972	-3.951 *	.0342
SG	-1.25490	-2.043 *	.0438
ROA	-18.57691	-2.043 *	.0265

Bathala et al. [4]. In this case, the percentage of institutional share ownership for companies issuing shares on the Indonesian Stock Exchange is low, so it can be said that institutions are minority shareholders. Institutional investors need to improve as monitoring agents and in their monitoring of managers.

Institutional ownership has a relationship with the level of expenditure, so institutional investors will use monitoring agents that are effective and helpful in agency costs. The presence of external monitors could restrict the opportunistic habit of management. Relatively large institutional ownership will result in the emergence of close supervision of company management so that finding sources of funds according to needs will increase.

Bathala et al. [4], Moussa and Chichti [9], and Agyei and Owusu [12] stated that an institutional investor could adequately monitor the conduct of the company managers to ensure the managers will work for the sake of the shareholders. The presence of proper supervision by institutional investors may cause a decrease in the use of leverage because the company management will be careful and disciplined in managing their debt. The significance of institutional investors as monitoring parties may depend on the size of their share investment, and a considerable economic interest may be needed to control the agency cost of the company.

4.4 Effect of Asset Growth on Leverage

From the calculation, the magnitude of the regression coefficient between the asset growth variable and leverage is 0.021316, and the t count is 2.723, with a significance level of 0.0035. H_0 is therefore rejected, and H_1 is accepted, while the correlation direction is positive. The numbers indicate a significant relationship between asset growth and leverage. The results of this research align with the study conducted by Bathala et al. [4], and Moussa and Chichti [9], who found that managers can invest in the company capital if the company has good prospects. Likewise, an investor will be more comfortable with making a loan if it is accompanied by collateral, so the bankruptcy risk will be diminished because of the growth in assets. If the leverage level of a company is relatively high, this indicates that the company tends to depend on debt for funding its assets. A company's asset growth will affect its activities. Companies with good performance and prospects can be said that the company concerned can obtain net income and increase added value to increase the assets owned. When the asset value is high, the required funding in the form of debt will also be high. If the company is making a relatively large profit, then part of that profit will be used to expand the company, so the assets owned by the company will grow, and eventually, the company will maximize its asset growth. A company with a high growth rate tends to have a greater need for funds from external

sources [25]. Commonly, the cost of issuing stock is higher than that of issuing debt, so a company with a high growth rate tends to use more debt. The growth indicates the implementation of an option in the form of investments for the future that are needed to obtain assets.

4.5 Effect of Asset Growth on Company Dividend

The magnitude of the regression coefficient between asset growth and the dividend is 1.833053, and the t count is as high as 1.685, while the significance level is 0.0925, so H_0 is rejected, and H_1 is accepted. The direction of this correlation is consistent with the findings of the research of Leland and Pyle [26] and Maladjian and Khoury [27].

The results indicate that dividend payments made by the company can help to give helpful information and be viewed as a positive signal about the company's prospects. The decision to increase the dividend is made only if the management is convinced that the company will be able to maintain the increase in the future [28]. Maladjian and Khoury [27] stated that a company with a high growth rate and high demand for new capital would have reason to pay high dividends because it will often need to analyze the capital markets. Thus, a high dividend is one of the ways to bind the shareholders to the company since they receive the standard rate of return from the capital they invest in the company. If agency cost is to be reduced, dividend payments must be available. This implies that if the management issues stock to obtain new investments, the new investments will be attracted to the company only if the management can provide convincing information that the capital will be used beneficially. A dividend payment indirectly results in tighter control over the managers' investment activities, so a dividend may significantly contribute to the company's value.

A company with high growth has more significant opportunities and can lower dividend payments because it can fund its investments internally. It also does not need to pay more of its profits to an outside party [29]. In contrast, a company with low growth tries to draw external funds for its investments. The higher the transition of assets owned, the more dividend policy in a company will increase, and vice versa. The growth of this asset is expected by internal and external parties

of the company because good growth can provide good information for the development and performance of the company. External perception can be stated that the growth of a company's assets is a sign that the company has aspects that benefit stakeholders.

4.6 Effect of Earnings Volatility on Leverage

Based on the calculation results, earnings volatility significantly affects company leverage. This is based on the magnitude of the regression coefficient, which is -0.000125, and the t count of -2.951, with a significance level of 0.0033. Hypothesis H_0 is rejected, H_1 is accepted, and the correlation direction is negative.

These results agree and are consistent with the results of the research conducted by Bathala et al. [4], Crutchley and Hansen [19], and Moussa and Chichti [9]. An increase in earnings volatility will increase the agency's cost of debt, so the management will reduce the debt level to attain the right balance between benefits and costs when there is increased earnings volatility. A company with relatively stable earnings can predict future earnings more precisely.

Profit volatility will affect the leverage level, so investors also need to pay attention to the asset growth of the issuing company. The size of the asset growth will affect whether the company will deliver a profit. Suppose the company's profits have large fluctuations, or the company's earnings fluctuation is relatively large. In that case, investors and prospective investors are no longer attracted to invest their capital because the company's profits are uncertain. The higher the earnings volatility, the higher the risk the issuing company will bear. The investors will eventually take it, so the leverage level decreases, and creditors will be reluctant to lend to the company.

4.7 Effect of Earnings Volatility on Company Dividend

The regression coefficient between earnings volatility and company dividends is -0.02498, with a t-count of -1.979 and a significance level of 0.0438; the conclusion is that H_0 is rejected and H_1 is accepted. The numbers indicate a significant relationship between earnings volatility and the payment of company dividends, and the effect is adverse.

This case fits with the theory and is consistent with the research findings of Trang [29] and Maladjian and Khoury [27], who stated that a company at higher risk would have lower dividend payments because the high risk will cause an increase in transactions costs. The current dividend would decrease if the company reduced its dividend payments to fund its investments. It means that the uncertainty will increase. Of course, investors expect that there will be an answer to the delay, and for that reason, investors are willing to pay a higher price for a share in the company. So, investors' perceptions will be affected by the risk relating to the dividend payment. The management may establish a policy to balance the benefits and costs in conditions of increased revenue volatility, so management should not only reduce leverage but also rely on equity. As asset growth reflects the company's performance achieved in investing and expanding the company, thus the benefits obtained can increase. The revenue received by the company will affect the company's ability to fund its operational activities.

4.8 Effect of Firm Size on Leverage

From the calculation, the magnitude of the regression coefficient between the company size and the leverage level is 0.019013, while the value of the t count is 4.023, and the significance level is 0.0001. The numbers agree with the theory and are consistent with the previous research conducted by Moh'd et al. [8], Moussa and Chichti [9], and Agyei and Owusu [12]. In this case, the company tends to increase its leverage as it becomes more significant. A large company can easily access the capital markets, and this ease of access means that a large company has greater flexibility and the capability to obtain funding quickly. Managers of companies in this position will be more likely to rely on leverage. The other advantage is the securities of large companies reflect assets that are easily traded so that they are more liquid and have a lower risk. A large company has economic scales that enable them to operate more efficiently. So, the size of the company will have an impact on the company's debt policy, the larger the company will need more funds to fund the company's operations, and debt will also increase.

4.9 Effect of Firm Size on Company Dividend

The magnitude of the regression coefficient between firm size and company dividend is -

1.349719, and the t count is as large as -3.951, while the significance level is 0.0342. Therefore, H_0 is rejected, and H_1 is accepted. The numbers indicate a significant relationship between firm size and company dividend payment. The effect has a negative direction of correlation. This correlation direction does not fit with the research of Crutchley and Hansen [19], and Tariq [5]. It agrees with the theory that a dividend policy determines the distribution of profits between dividend payments to the shareholders and reinvestment in the company [27]. The results demonstrate that a company tends to keep its profits for reinvestment in business expansion and that company development is financed from retained earnings. A company does this by lowering the dividend payment to increase its liquidity. A lower dividend payment means the company needs less external funding because the management needs to pay dividends but maintains cash internally. According to Myers [25], if a company is retaining money, it prefers internal funding to external funding and will adjust its payment ratio target to the current investment opportunities.

4.10 Effect of Firm Size on Company Dividend

The magnitude of the regression coefficient in the calculation results between sales growth and company dividend is -1.254901 while the t count is 2.043, and the significance level is as high as 0.0438, so H_0 is rejected, and H_1 is accepted. The correlation direction is negative. The results of this research agree with the previous study conducted by Jensen et al. [22].

The results indicate that sales growth can reflect the investment success of the previous period and can be taken as a prediction of future growth. A company's sales growth rate will affect its ability to maintain its profits and reflect an income increase. The faster the company grows, the higher its need for funds in the future. Therefore the higher the possibility that the company will retain income and not pay it out as dividends [27]. The potential for company growth is an essential factor determining the dividend policy.

Lower dividend payments mean the company needs less external funding because it needs to pay dividends to its shareholders but is maintaining its cash internally. Therefore, if a company is retaining money in the form of

retained earnings, it can be said that it prefers internal funding to external fund usage.

4.11 Effect of Profitability on Company Dividend

The magnitude of the regression coefficient between profitability and company dividend is -18.576915, and the t count is -4.334, while the significance level is as high as 0.0265. For this reason, H_0 is partially rejected, and H_1 is partially accepted. The regression equation explains that profitability has a negative coefficient direction to the dividend. This indicates that profitability has a significant effect on company dividends. The regression coefficient's direct result does not match the previous research conducted by Jensen et al. [22] and Tariq [5], who stated that a company with high profitability has relatively large cash amounts available to make dividend payments.

The results indicate that if a company has a significant amount of retained income (profit), it prefers to use its retained earnings for funding [29]. A lower dividend payment means that the company needs less funding from the outside because it does not pay dividends but maintains its cash internally. This agrees with the theory proposed by Myers and Majluf [30] that a company prefers a capital accumulation tool by following the order of retained earnings, debt funding, and new equity. Myers [31] asserted that some things may cause a restriction on dividends, namely: (i) there is still a monitoring cost because it would be possible for capital to be transferred to the company owner. This case is complicated if the company owner is also the manager; (ii) the investment policy from the shareholders' viewpoint does not maximize the company value. The shareholders like the assets they put at risk to be as safe as other assets; (iii) if there is a binding restriction on dividends, the company may perhaps make investments in assets with a net value that is now contrary to that profitable. This means that the company will keep cash that should be distributed to the company owners, and (iv) a dividend restriction will be helpful if there is readily available cash to make dividend payments.

4.12 Interaction Correlation between Leverage and Dividend Policy

The conceptual framework tested the analysis for hypothesis 4 for the research that reflects the hypotheses that leverage shows an interaction

correlation with company dividends or each affects the other. To prove the existence of the interaction correlation, testing was conducted by estimation of a two-stage least square (TSLS) model.

The results for the leverage equation indicate that dividend payment has a negative sign and is significant. The negative coefficient is to the theory and consistent with the results of previous research conducted by Jensen et al. [22], Moh'd et al. [8], and Sang et al. [32]. Dividend payments appear as the debt is substituted in the capital structure [6]. Jensen et al. [22] stated that companies with high dividend payments tend not to use debt funding to fund their company capital. Companies with a high fixed financial cost do not like high dividend payments. Dividend payments diminish the funding sources controlled by the managers.

The result for dividend payment indicates that leverage has a negative sign and is significant. This agrees with the research of Jensen et al. [22]. The negative coefficient for the level of leverage in the dividend equation shows that companies will trade between dividend payments and a fixed burden, to reduce agency problems.

The analysis of the leverage and company dividend results indicates an interactive relationship between them or that they affect each other directly in each equation [33]. This means that when a company uses debt, the managers must comply with their financial obligations in the form of a fixed burden so that the profits will decrease. Eventually, the cash available for dividend payments will be lower. In contrast, if the company makes high dividend payments, the retained earnings will be low, so the management decisions about activity, business expansion, and investment will be related to the company funding.

5. CONCLUSION

The share ownership structure can contribute to leverage through the results of the research direction. Whereas company characteristics can contribute to the level of leverage, management can invest in company capital if it has good prospects. Attributes of companies can contribute to dividend payments; research results generally illustrate that the company retains its profits to be reinvested for business expansion financed from retained earnings. The use of leverage affects the number of dividends, so

paying dividends will involve the use of leverage. This condition shows that leverage and dividend influence each other.

The limitations in this study are limited to manufacturing companies, and not all companies that go public are listed on the Indonesia Stock Exchange. The research period is set for five years, and the determination of variables on company characteristics and share ownership. For future researchers who conduct similar research, it is hoped that it will expand and increase the period and number of research samples and add research variables.

ACKNOWLEDGEMENTS

The author thanked to the Faculty of Economics and Business, National "Veteran University for giving support to accomplish this study.

COMPETING INTERESTS

Author has declared that no competing interests exist.

REFERENCES

1. Putra T. Bikin khawatir! Tahun ini, banyak emiten terancam pailit; 2020. Available: [https://www.cnbcindonesia.com/market/20200901123226-17-183532/bikin-
khawatir-tahun-ini-banyak-emiten-
terancam-pailit](https://www.cnbcindonesia.com/market/20200901123226-17-183532/bikin-khawatir-tahun-ini-banyak-emiten-terancam-pailit)
2. Asquith P, Mullins DWJ. Signaling with dividends, stock repurchases, and equity issues. *Journal of Financial Management*. 1986;15:27-44.
3. Khamis R, Hamdan AM, Elali W. The relationship between ownership structure dimensions and corporate performance: Evidence from Bahrain. *Australasian accounting, Business and Finance Journal*. 2015;9(4):38-56.
4. Bathala CT, Moon KP, Rao RP. Managerial ownership, debt policy, and the impact of institutional holdings: An agency perspective. *Financial Management*. 1994;23(3):38-50.
5. Tariq A. The joint determinants of leverage and dividend policy: A balanced panel study of non-financial firms of India and Pakistan. *European Scientific Journal*. 2015;11(10):311-328.
6. Jiang J, Jiranyakul K. Capital structure, cost of Debt, and dividend payout of firms in New York and Shanghai Stock Exchanges. *International Journal of Economics and Financial Issues*. 2013; 3(1):113-121.
7. Cortez MA, Susanto S. The determinants of corporate capital structure: evidence from Japanese manufacturing companies. *Journal of International Business Research*. 2012;11(3):121-134.
8. Moh'd MA, Larry GP, Rimbey JN. The impact of ownership structure on corporate debt policy: a time-series cross-sectional analysis. *The Financial Review*. 1998;33(3):85-98.
9. Moussa FB, Chichti J. A nonlinear simultaneous equation analysis of managerial ownership and debt policy: Evidence from Tunisian stock exchange. *International Journal of Accounting and Financial Reporting*. 2013;3(2):225-254.
10. Endri E, Fathony M. Determinants of firm's value: Evidence from financial industry. *Management Science Letters*. 2020;10(1):111-120.
11. Mujino, Wijaya A. The effect of dividend policy, debt policy, profitability, asset structure, and company size on the value of manufacturing companies listed on the Indonesia stock exchange 2013-2019. *International Journal of Economics, Business and Accounting Research (IJEBAR)*. 2021;5(2):48-62.
12. Agyei A., Owusu AR. The effect of ownership structure and corporate governance on the capital structure of Ghanaian listed manufacturing companies. *International Journal of Academic Research in Accounting, Finance and Management Sciences*. 2014;4(1):109-118.
13. Chang RP, Rhee SG. The impact of personal taxes on corporate dividend policy and capital structure decisions. *Financial Management*. 1990;19(2):21-31.
14. Joher H, Ali M, Nazrul M. The impact of ownership structure on corporate debt policy: Two-stage least-square simultaneous model approach for the post-crisis period: Evidence from Kuala Lumpur stock exchange. *International Business & Economics Research Journal*. 2006;5(5):51-64.
15. Rizqia DA, Aisjah S, Sumiati. Effect of managerial ownership, financial leverage, profitability, firm size, and investment opportunity on dividend policy and firm value. *Research Journal of Finance and Accounting*. 2013;4(11):120-130.

16. Razak, Fatihani F, Wana D, Riyadi S, Suparmun H, Indrasari A, Endri E. Determinants of dividend policy of manufacturing companies in Indonesia. *Academy of Accounting and Financial Studies Journal*. 2022;26(1):1-11.
17. Rusmanto T, Setyaningrum L. The effect of growth, managerial ownership, and profitability toward firm value. *The International Journal of Business & Management*. 2021;9(7).
18. Paramartha IPIP, Rasmini NK. Effect of managerial ownership and institutional ownership on firm value with enterprise risk management disclosure as moderating variables. *Internasional Research Journal of Management, IT & Social Sciences*. 2021;8(4):313-321.
19. Barton SL, Hill NC, Sundaram S. An empirical test of stakeholder theory predictions of capital structure. *Financial Management*. 1989;18(1):36-44.
20. Crutchley CE, Hansen RS. A test of the agency theory of managerial ownership, corporate leverage, and corporate dividends. *Financial Management*. 1989;18(4):36-46.
21. Holder ME, Langrehr FW, Hexter JL. Dividend policy determinants: An investigation of the influences of stakeholder theory. *Financial Management*. 1998;27(3):73-82.
22. Jensen GR, Solberg DP, Zorn TS. Simultaneous determination of insider ownership, debt, and dividend policies. *Journal of Financial and Quantitative Analysis*. 1992;27(2):247-262.
23. Jensen MC, Meckling WH. Theory of the firm: Managerial behavior, agency costs, and ownership structure. *Journal of Financial Economics*. 1976;3(4):305-360.
24. Dempsey SJ, Laber G. Effects of agency and transaction costs on dividend payout ratios: Further evidence of the agency-transaction cost hypothesis. *Journal of Financial Research*. 1992;15(4):317-321.
25. Salim M, Yadav R. Capital structure and firm performance: evidence from Malaysian listed companies. *Procedia – Social and Behavioral Sciences*. 2012;65:156-166.
26. Leland HE, Pyle DH. Informational asymmetries, financial structure, and financial intermediation. *The Journal of the Financial*. 1977;32(2):371-387.
27. Maladjian C, Khoury RE. Determinant of the dividend policy: An empirical study on the Lebanese listed banks. *International Journal of Economics and Finance*. 2014;6(4):240-256.
28. Alzomaia TSF, Al-Khadiri A. Determination of dividend policy: The evidence from Saudi Arabia. *International Journal of Business and Social Science*. 2013;4(1):181-192.
29. Trang NTX. Determinant of dividend policy: The case of Vietnam. *International Journal of Business, Economics and Law*. 2012;1:48-57.
30. Myers SC, Majluf NS. Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics*. 1984;13(2):187-221.
31. Myers SC. The capital structure puzzle. *The Journal of Finance*. 1984;39(3):575-592.
32. Sang W, Shisia A, Gesimba P, Kilonzo T. The relationship between the dividend payout ratio and the capital structure of listed companies at Nairobi securities exchange, Kenya in the industrial and allied sector. *International Journal of Economics, Commerce, and Management*. 2015;3(10):469-484.
33. Al-Najjar B. The inter-relationship between capital structure and dividend policy: Empirical evidence from Jordanian Data. *International Review of Applied Economics*. 2011;25(2):209-224.

© 2023 Nur; This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Peer-review history:

The peer review history for this paper can be accessed here:

<https://www.sdiarticle5.com/review-history/96025>