The Effects of Capital Structure, Business Risk, and Return on Equity Against Dividend Policy with Firm Size as a Moderating Variable

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Abstract:

This study examines the factors influencing dividend policy in state-owned enterprises (SOEs) and their subsidiaries. Through the list provided by the Indonesia Stock Exchange, a total of 48 samples were selected, of which 8 are state-owned enterprises for the 2015-2020 period. Eviews version 11.0 is used as the analytical tool to analyze the provided hypothesis. The results show that capital structure displays a significantly negative effect on dividend policy, however both business risk and return on equity show no effect on dividend policy. Firm size is able to moderate capital structure against dividend policy, however it is unable to moderate business risk and return on equity against dividend policy.

Keywords: Dividend policy, capital structure, business risk, return on equity, firm size

1. Introduction

Dividend policy is among the key factors in business decisions. (Sartono, 2010) defines dividend policy as the practice of distributing the profits of a company. The policy of the company relates to the choice of how much net profit will be dispersed as dividends and how much of the business's retained earnings will be spent in it. The investment opportunities of the company, financial structure, stock prices, liquidity position, and funding flows are all affected by the dividend policy, making it essential (Sundari. W and Utami. W, 2013). Additionally, the dividend policy of a company plays a significant role in its long-term funding strategy, which it uses to adapt to the dynamics of the business environment. Without funding, companies may face the loss of profitable investment opportunities.

Companies generally need funds to develop. The company receives funds both from internal and external sources, where it must persuade investors to put funds into the company. Investors make investments with the goal of profit from income (dividends) and the distinction between the share's acquisition price and sale price (capital gains). The return from this is an indication that investors' and shareholders' wealth will rise. Investors will be delighted if they get a higher stock return overtime.

One difficulty that the financial management of a company continues to face is the dividend distribution policy, as it has to decide whether to distribute dividends or invest funds for the company's development. It is critical for management to determine the optimal dividend policy in order to achieve balance between dividends distributed today and for the company's future growth. According to (Brigham, 1999), each

change in dividend payment policy will have two opposing impacts, where if management uses all profits to pay dividends to shareholders, the need for internal funds will be disrupted in the process of making investments to meet its capital. If management withholds all profits for investment fundings needs, then the opposite impact will occur. The obligation of the company to pay its dividends will be impaired too, demanding further examination towards the amount of dividend distribution.

Dividend payout ratio (DPR) is the proportion of income that will be distributed as exchange dividends to shareholders. (Setiawan, et al, 2018) states that the consideration of the amount of dividend payout can be thought to be closely in connection with the business's financial performance. If the financial performance is excellent, it will be able to set the dividend payout ratio at a threshold that meets shareholder expectations. If the company decides to pay out its dividends, it will decrease retained earnings and internal sources of funds. In comparison, if the company decides to retain profits and forgo paying dividends, the company's capacity to generate internal funds will increase, however this will reduce welfare for involved shareholders (Zulkifli, et al, 2017).

From the descriptions above, the distribution of dividends involves a variety of parties with conflicting interests, including management with its retained earnings and shareholders with their dividends. This condition is referred to as agency theory, introduced by Jensen and Meckling in 1976, which describes this connection as agents (management) and business principles (shareholder). Both parties seek to maximize their interests which tend to be in conflict with one another. Such is the importance of the role of dividend, as due to the signaling effect, investors place a higher value towards a company that is able to distribute a sizable and continued dividend. As such, distribution of cash dividends is one factor that attracts investors to put money into a company. Dividend is an important aspect in a company that can influence stakeholders, shareholders, and investors to cooperate and invest in the company.

Based on the Organization for Economic Co-operation and Development (OECD), dividend policy is an issue faced universally. Of the OECD countries, only Argentina, Brazil, and Uruguay have comprehensive principles for determining the dividend rates for state-owned enterprises. Despite the high number of companies with a decreased amount of dividend payments, up to 41% according to the percentage of dividend distribution in 2017, Indonesia itself lacks regulations governing dividend policy. As a result, this decreases investor interest in investing in these state-owned enterprises. SOEs contributed as much as 43.9 trillion IDR in non-tax revenue in 2017, hence, the lack of rules governing the distribution of dividends in Indonesia will affect the government itself, as the smaller percentage of dividend payments will result in proportionally less state revenue, which will affect the government spending cost.

Given the variation in the percentage of dividend distribution in these SOEs, research is needed on the factors that exert influence on dividend policy. Many factors have influenced on dividend policy, though the variables, in this study, were selected because of their theoretical connection with the dividend policy, along with the consideration that previous studies regarding the effects of the selected variables on dividend policy were inconsistent. The first factor in this research is capital structure. Capital structure uses the leverage ratio with Debt-to-Equity Ratio (DER), used to calculate the percentage of money borrowed to pay for the business's assets. This ratio demonstrates the company's capability to pay off its responsibilities with its own capital. The company is more likely to be capable of paying its obligations

the lower the DER, due to the fact that its obligations are smaller the bottom the percentage of debt that it uses for its capital structure.

This is in line with the studies conducted by (Herawati and Irradha Fauzia, 2018), (Rehman, 2012), and (Labhane and Das, 2015), which have found that the leverage of DER on the dividend payout ratio is substantial. The more debt that a company has, the more it prefers to retain profits to pay debts over distributing them to investors. According to research by (Alzomaia and Al-Khadhiri, 2013), (Wahjudi, 2020) DER may negatively affect dividend policy. Nevertheless, different results were conducted by (Budiman and Harnovinsah, 2016), which describe that regarding dividend payout ratio, DER has no impact. Companies view dividends as a future forecast and due to this, even though a company's DER is high, dividends will continue to be distributed.

The second factor used in this study is business risk. It is difficult to separate the company's activities from the existence of risk. Risk, according to Griffin and Ebert in (Fahmi, 2014), is uncertainty of future events, as well as the possibility of bad consequences or unwanted losses (Ghozali, 2018). Business risk is defined as a condition of financial insecurity that has an impact on reducing company performance. Business risk is one of the key elements impacting dividend policy. Several studies conducted on the subject in (Jaara, Alashhab and Omar, 2018), (Patra, Poshakwale and Ow-Yong, 2012) showed that business risk has a negative effect on dividend payout ratio. The results, however, are distinction from those of the study conducted by (Khan and Ahmad, 2016), which demonstrated that business risk has little bearing on the dividend policy.

Return on Equity (ROE) is the third variable set as a benchmark in this study. ROE significantly influences dividend policy, according to (Dewasiri et al., 2019), (Barros, Verga Matos and Miranda Sarmento, 2020), and (Ofori-Sasu, et al., 2017). This is in concert with the findings of (Issa, 2015), (Patra, et al., 2012), (Musiega et al., 2013), in which DPR is significantly and favorably affected by ROE. Profits that benefit shareholders are one of the key drivers behind business operations. High ROE is evidence of the business's ability to provide significant returns for shareholders, which has an impact towards increasing dividends. However, these findings contrast with that of (Faraz et al., 2017) which discovered that ROE has an insignificant effect on DPR.

This study also uses the firm size variable. The size of a company is specified by its total assets, which are used to determine the firm size. According to (Weston and Copeland, 1996), large and/or established companies tend to provide higher dividend payment rates compared to small and/or young companies. This is in accordance with research by (Ismail, 2016), (Ankudinov and Lebedev, 2016), and (Dewasiri et al., 2019) which found that firm size significantly affects dividend policy. However, research conducted by (Khan and Ahmad, 2016), (Budiman and Harnovinsah, 2016) found differing results.

2. Literature review and hypothesis development
2.1 Agency Theory
In accordance with (Jensen & Meckling, 1976), Agency Theory explains a connection between managers (agents) and investors (principals). The agent could not always take action in the principal's best interests, which creates a conflict of interest between the two parties. By distributing dividends to shareholders, it

is possible to minimize the emergence of agency costs and prevent the company from having excess funds, which can create opportunities that can be abused by various irresponsible parties. As a means for companies to ensure investors' confidence in putting reinvestment towards them. Dividend payments can be used as a means of monitoring shareholders on company management.

2.2 Signaling Theory

Signaling theory (Ross, 1977) underlines the impact of details made public by businesses on third parties' investing choices. According to this hypothesis, businesses that do well use financial data to alert the market. Signaling theory on dividend payout ratio is reflected in investors who require information to evaluate the risk of each company. To make informed investment decisions in the capital market, investors need information that is thorough, pertinent, accurate, and timely. According to the dividend signaling theory, it is stated that announcements of dividend payments contain information that can cause market reactions. Investors assess changes in dividends as a signal of earnings forecasts sent out by management. An increase in dividend payments is frequently considered to be a positive signal of good corporate prospects and results in a positive reaction.

2.3 Dividend Policy

Dividend policy is determining whether to pay out profits as dividends to shareholders or to retain them as retained earnings to fund future investments (Sartono, 2010). The dividend payout ratio, or the section of profits that will be dispersed as dividends, is a measure of a company's dividend policy. A reward that investors expect in addition to capital gains are dividends. Additionally, there exist factors that are able to influence dividend policy such as the liquidity position of the company, the requirement for money to pay debt, the level of asset expansion, the stability of the company's profits, laws and regulations, company control, restrictions in debt agreements, and its ability to borrow (Brigham and Houston 2011).

2.4 Capital Structure

One of the important decisions in financial management is funding decisions related to capital structure. Company management, in operating its business, is inextricably linked to funding requirements. The company's funding requirements can be met both internally (internal financing) and externally (external financing). According to the Pecking Order theory (Myers, 1984), companies frequently choose internal finance over external financing (money obtained from operating results in the form of retained earnings).

2.5 Business Risk

In (Fahmi, 2014), Griffin and Ebert define risk as the uncertainty of future events. Business risk is defined as a condition of financial insecurity that has an impact on reducing company performance. In business risk, fluctuations in uncertainty cause the company to experience operational difficulties and financial insecurities. The greater the actual deviation, the greater the level of risk that must be burdened. Less debt will be used by companies with high business risk than by companies with low business risk. This is because the higher the level of business risk, the use of large debt makes it difficult to repay the debt. Furthermore, investors will find the lower business risk more attractive, which causes many institutions to be keen on owning shares in the company.

2.6 Return On Equity

Profitability refers to the propensity of a company to turn a profit from its daily operations and it is the outcome of a number of policies and decisions made by the company (Brigham & Houston, 2011). According to Lintner's empirical research, profitability is the primary factor influencing dividend policy (1956).

2.7 Firm Size

Based on the research from (Brigham & Houston, 2010), the size of a company is specified by its total assets, total sales, total earnings, and other factors. The size of a company is one benchmark that indicates the financial condition of the company. A company can be determined to be a large company if the wealth it has is large and vice versa.

2.8 The Effect of Capital Structure on Dividend Policy

Dividend payments will reduce cash funds, forcing the company to use additional funds from debt (Hanafi, 2010). The amount of debt will affect the capital structure. Optimal capital is management's objective to improve the company's performance in earning profits, as increased profits will eventually be returned to shareholders. In Pecking Order theory (Myers, 1984), it is explained that the debt ratio is inversely proportional to profit; the higher the DER, the lower the profit, resulting in a lower dividend. The debt-to-equity ratio has a negative impact on dividend policy as measured by the dividend payout ratio because a higher debt load will limit the company's ability to pay out dividends.
H1 : Capital Structure negatively affects dividend policy.

2.9 The Effect of Business Risk on Dividend Policy

To determine Business Risk, earnings before interest tax (EBIT), a proxy for the unpredictability of a company's current and future earnings, is divided by total assets. Companies with high business risk seek to strengthen the capital structure so that profits are retained which has an impact on reducing dividends paid to shareholders, so business risk negatively affect dividend policy.
H2 : Business Risk negatively affects dividend policy.

2.10 The Effect of Return On Equity on Dividend Policy

Higher ROE is better because it indicates the company effectively uses equity to generate profits and vice versa. This is in accordance with the Signaling Hypothesis theory, which outlines that investors perceive changes in dividends as a signal of good earnings in the future (Atmaja, 2008: 287). As such, the company will increase dividend payments if an increase in profits exist.
H3 : Return on Equity (ROE) positively affects dividend policy.

2.11 The Effect of Capital Structure, Business Risk, and Return on Equity Against Dividend Policy Moderated by Firm Size

Large companies have broader access to various funding sources, which facilitates loan application, this is because large companies pose a greater probability of outperforming their competitors or staying viable in the industry. Firm size is a measure used to find out the size of one company, where there exists a positive connection between assets and capital invested in a company, as well as in the number of sales and money circulation within the company.

H4 : Firm Size adjusts the connection between Capital Structure against dividend policy.
H5 : Firm Size adjusts the connection between Business Risk against dividend policy.
H6 : Firm Size adjusts the connection between Return on Equity (ROE) against dividend policy.
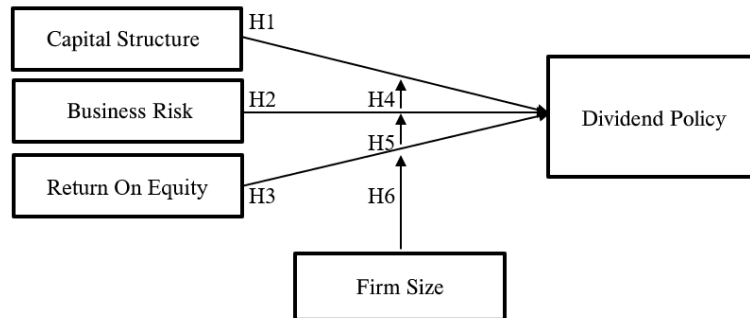

Figure 2.1 Frame of Mind

3. Research methodology

This study is a causal and quantitative research. Whenever accessible, the financial statements and annual reports of each company were obtained for this study from the Indonesia Stock Exchange (IDX) website. This study used samples which were 8 SOEs and their subsidiaries as registered on the IDX for the 2015-2020 period, totalling at 48 samples. Purposive sampling method is used for the sampling technique. The requirements for determining the samples are:

a. SOEs and Subsidiaries registered in BEI for the 2015-2020 period.
b. SOEs and Subsidiaries with actively traded shares during the 2015-2020 period and were not delisted during the year of the study.
c. Companies with annual financial reports ending on December 31st.
d. Companies that made profit during the 2015-2020 period.
e. Companies that consistently paid out dividends between 2015 and 2020..
f. SOEs and Subsidiaries with IPO above 2015.

This study involves data panel, therefore regression analysis as supported by EViews version 11.0, is used through the subsequent actions: a) Descriptive Statistical Analysis, b) Model Selection, c) Model estimation, d) Classical Assumption Test and e) Hypothesis Test, consisting of: Determination Coefficient Test (R^2), Statistical F-test, Statistical T-test and Multiple Linear Regression Analysis.

In this investigation, the subsequent regression model is employed:

DPR = α + β1DER + β2RISK + β3ROE + β4DER*FIRMSIZE + β5RISK*FIRMSIZE + β6ROE*FIRMSIZE+ ϵ

Description:
DPR   : Dividend payout ratio (DPR)
α : Constant
β2, β2, β3   : Regression coefficient on each variable

DER   : Capital Structure
RISK   : Business Risk
ROE   : Return On Equity
FIRMSIZE   : Firm Size
ε   : Standard Error

The operational variables employed in this study are as follows:

Table 3.1 Variable Measurement Scales

Variable	Indicator	Details
Capital Structure	$DER = \dfrac{\text{Total Debt}}{\text{Total Equity}}$	Source: Herawati, A., & Irradha Fauzia, F. (2018). KnE Social Sciences, 3(10), 1076-1086.
Business Risk	$\dfrac{EBIT}{\text{Total Asset}}$	Source: Roshidayah (2021) Vol.8 No.1
Return on Equity (ROE)	$\dfrac{\text{Net Income After Tax}}{\text{Total Equity}}$	Source: Issa, Ayman (2015). Research Journal of Finance and Accounting, Vol. 6, 2015.
Firm Size (FIRM SIZE)	FIRM SIZE = Ln (total asset)	Source: Dewasiri, N. J. et al. (2019), *Managerial Finance*
Dividend Policy	$DPR = \dfrac{\text{Dividend Per Share}}{\text{Earning Per Share}}$	Source: Musiega *et al.,*2013. International Journal Of Scientific & Technology Research Volume 2, Issue 10, October 2013 ISSN 2277-8616

Source: Data processed by author

4. Results and discussions

4.1 Descriptive Statistics

Table 4.1 outlines the descriptive statistics. Table 4.1 shows that the dividend policy with the dividend payout ratio (DPR) resulted in an average of 0.394644. This specifies that the average cash dividend distribution policy is 39% of the earnings per share earned by the company. The minimum value of DPR is 0.100000 which was seen in 2016 at PT Elnusa Tbk (ELSA) and in 2019 at PT Semen Indonesia (Persero) Tbk (SMGR). The maximum value is 0.900000 in the dividend payment in 2019 by PT Tambang

Bara Bukit Asam Tbk PTBA) and in 2018 at PT Telekomunikasi Indonesia (Persero) Tbk (TLKM). The results show that the range of value of DPR in the samples ranges from 0,100000-0,900000 with an average of 0.394644 and with a standard deviation of 0.216539, indicating an uneven distribution.

The mean value of the capital structure variable (DER) is 2.311634, and its standard deviation is 2.210172. SOEs typically continue to have a noticeably high DER value. SOEs frequently use financing through external fundings compared to internal financings. This is essential to the efforts to increase the company's credibility. The minimum value for DER is 0.308692, indicating the smallest use of debt, occurring in 2016 by PT Semen Indonesia (Persero) Tbk (SMGR), whereas the maximum value for DER is 6.764945 by PT Bank Rakyat Indonesia (Persero) Tbk (BBRI) in 2015.

The mean value of business risk is 0.093362 with a standard deviation of 0.073721. PT Bank Negara Indonesia (Persero) Tbk (BBNI) displayed the lowest business risk in 2010 with the value of 0.005869, whereas PT Tambang Batu Bara Bukit Asam Tbk (PTBA) in 2017 had a high business risk. The average value for business risk is 0.093362 which tends towards the minimum value, indicating that the business risk of the samples in this study are comparatively low.

The mean value of Return on Equity (ROE) is 0.144214 with a standard deviation of 0.073614. The average value of ROE approaches 0, demonstrating that profitability of the samples are low. In 2020, PT Pembangunan Perusahaan (Persero) Tbk (PTPP) achieved an underperforming result at generating income, setting the minimum value of 0.019010. This is in contrast to the maximum value of 0.329510 as shown in 2017 by PT Tambang Batu Bara Bukit Asam Tbk (PTBA).

Firm size has a mean value of 31.79957 with a standard deviation of 1.908950. The minimum value of firm size is marked by PT Elnusa Tbk (ELSA) in 2016 with the value of 29.06395. This indicates that SOEs in this study experienced an asset reduction of 29.06395 compared to the previous year. The small firm size can be attributed to the significant asset reduction during the year. Comparatively, PT Bank Rakyat Indonesia (Persero) Tbk (BBRI) achieved the maximum value of 34.95208 in 2020. The average value of firm size of 31.79957 is closer to the minimum value, so the average value of firm size of the samples in this study is comparatively low.

Table 4.1 Descriptive Analysis

	DPR	DER	RISK	ROE	SIZE
Mean	0.394644	2.311634	0.093362	0.144214	31.79957
Median	0.300100	1.090337	0.073750	0.129341	31.54142
Maximum	0.900000	6.764945	0.268267	0.329510	34.95208
Minimum	0.100000	0.308692	0.005869	0.019010	29.06395
Std. Dev.	0.216539	2.210172	0.073721	0.073614	1.908950
Skewness	0.965132	0.955674	1.096228	0.695274	0.214654

Kurtosis	2.824579	2.221786	3.147533	2.979688	1.755323
Jarque-Bera	7.513385	8.517734	9.657261	3.868074	3.467052
Probability	0.023361	0.014138	0.007997	0.144563	0.176660
Sum	18.94290	110.9584	4.481399	6.922288	1526.380
Sum Sq. Dev.	2.203785	229.5884	0.255438	0.254691	171.2722
Observations	48	48	48	48	48

Source: Output from EViews version 11.0

4.2 Model Selection Test

According to the results of the model selection tests provided in the Chow Test, Hausman Test, and Lagrange Multiplier Test, we can infer that the chosen model is the Common Effect model.

4.3 Classical Assumption Test

The standard hypothesis test employed in this study includes the following: 1) normality test, the results of this test concluded that the model fulfills the assumption of normality. 2) multicollinearity test provided the results that the independent variables employed in this study aren't multicollinear. 3) autocorrelation test in the regression model does not display autocorrelation. However, in 4) the heteroscedasticity test, the model in this study showed heteroscedasticity violation. Therefore, the model needs to be weighted to take into account the heteroscedasticity violation in the common effect model (Wati, 2018).

4.4 Hypothesis Test
4.4.1 Determination Coefficient Test

Table 4.12 stipulates that the Adjusted R-squared value is 0.630008. This demonstrates that the proportion of dividend payout ratio that can be accounted for by the factors of Capital Structure, Business Risk and Return on Equity with Company Size as a adjusting variable is exactly 63.00%. Furthermore, this indicates that the remaining 37.00% is influenced by other unexamined variables.

4.4.2 Statistical F-test

The retrieved Probability (F-statistic) value is 0.000000 in table 4.12, which is less than 0.05. We can draw the conclusion that the model employed in this analysis is deemed fit.

4.4.3 Statistical T-test

In the partial significance test in table 4.12, it is shown that DER obtained a probability value of 0.0317, lower than 0.05, and from its regression coefficient is seen as negative, which indicates that H1 is accepted. This result means that DER significantly affect negatively DPR. RISK obtained a probability value of 0.5747, a value which rejects H2 as it is greater than 0.05. This explains that RISK does not influence DPR. ROE obtained a probability value of 0.9497, rejecting H3 at a significance level higher than 0.05. Additionally, for DER moderated by FIRM * SIZE, the resulting probability value is 0.0299, which is lower than 0.05, and thus accepting H4. This means that FIRM * SIZE has been demonstrated to moderate

the opposition between DER and DPR. However, for the two other moderating variables obtained a probability value greater than the significance level of 0.05, such as RISK * SIZE (0.4752) and ROE * SIZE (0.9363), showing that they are not significant, and rejecting both H5 and H6 respectively.

4.4.4 Multiple Linear Regression Analysis

The regression equation shown below is obtained from the data processing findings in table 4.12:

DPR = 0.247072 - 0.597142 DER - 7.892922 RISK - 0.617350 ROE + 0.017504 DER*FIRMSIZE + 0.304520 RISK*FIRMSIZE + 0.023854 ROE*FIRMSIZE

From the equation above, a constant value of 0.247072 is obtained. This implies that if the DER variable is not affected by its independent variable or the independent variable is zero, the resulting dividend payout ratio will be equal. The sign of the regression coefficient of the independent variable indicates the direction of the variable's connection to the dividend payout ratio. The regression coefficient for the independent variable capital structure (DER) is negative, indicating a one-way connection between capital structure (DER) and dividend payout ratio (DPR). The DER variable regression coefficient of -0.597142 shows that per unit increase in DER, DPR will proportionally decrease by 0.597142.

The regression coefficient for the independent variable business risk (RISK) shows a negative value, indicating a owe-way connection between business risk (RISK) and dividend payout ratio (DPR). Regression coefficient of the RISK variable of -7.892922 means that every unit of increase in RISK will cause a decrease in DPR by 7.892922.

The regression coefficient for the independent variable return on equity (ROE) is negative, indicating a owe-way connection between return on equity (ROE) and dividend payout ratio (DPR). Regression coefficient of the ROE variable of -0.617350 means that every unit increase in ROE will cause a decrease in DPR by 0.617350.

The regression coefficient for the independent variable capital structure moderated by firm size (DER * FIRMSIZE) is positive, indicating a owe-way connection between capital structure moderated by firm size (DER * FIRMSIZE) and dividend payout ratio (DPR). Regression coefficient of the DER * FIRMSIZE variable of 0.017504 indicates that for each unit increase DER * FIRMSIZE, DPR will increase by 0.017504.

The regression coefficient for the independent variable business risk moderated by firm size (RISK * FIRMSIZE) is positive, indicating a one-way connection between business risk moderated by firm size (RISK * FIRMSIZE) and dividend payout ratio (DPR). Regression coefficient of the RISK * FIRMSIZE variable of 0.304520 means that for each unit increase in RISK * FIRMSIZE will cause an increase in DPR by 0.304520.

The regression coefficient for the independent variable return on equity moderated by firm size (ROE * FIRMSIZE) is positive, indicating a one-way connection between return on equity moderated by firm size (ROE * FIRMSIZE) and dividend payout ratio (DPR). Regression coefficient of the ROE * FIRMSIZE

variable of 0.023854 means that for each unit increase in ROE * FIRMSIZE will cause an increase in DPR by 0.023854.

4.5 Discussion

4.5.1 The effect of capital structure on dividend policy

The results of hypothesis testing show that capital structure significantly affects dividend policy negatively. The lower the debt-to-equity ratio (DER), the higher the company's capability to pay all its responsibilities due to the fact that a company's obligations rise in percentage to the amount of debt used in its capital structure. Given the fact that these obligations take precedence over distributing dividends, the amount of net profit available to shareholders, as well as dividends, will be impacted by the rising debt as well. The dividend payout ratio is negatively impacted by DER since a higher debt burden means a lesser ability for the corporation to pay dividends.

According to the changes that have occurred during the observation period, state-owned firms still have a relatively high average DER value. This shows that SOEs use external finance for financing more frequently than they use internal financing. Based on the Pecking Order theory, businesses will favor internal financing (funding from retained earnings derived from the company's operating outcomes) over external financing. Because debt involves a significant level of risk, organizations must be able to make decisions that deliver the advantages of leverage while also safeguarding shareholders' welfare from these dangers. This fact is crucial to attempts to improve the company's reputation and image. These finds are supported by the studies conducted by (Labhane and Das, 2015; Herawati and Irradha Fauzia, 2018; Wahjudi, 2020), but the results of this study are not supported by the research's results by (Atmoko et al., 2018; Budiman and Harnovinsah, 2016).

4.5.2 The effect of business risk on dividend policy

As a result of the hypothesis test's findings, it may be stated that a company's level of risk has no impact on how it decides whether to provide dividends to shareholders. The specific variables of the company itself are not explicitly linked to risks associated with general economic and market considerations. Hence, these risks have no bearing on the company's internal dividend policy or any other policy. The bird in hand hypothesis, which holds that investors prefer dividend payments to retained earnings, supports the study's findings. The study by (Khan and Ahmad, 2016) supports these results, but these study's results are in contrast with the studies conducted by (Sharma and Bakshi, 2019; Jaara, Alashhab and Omar, 2018; Labhane and Mahakud, 2016).

4.5.3 The effect of return on equity on dividend policy

The hypothesis test results show that return on equity (ROE) has no effect on dividend policy. Therefore, it can be said that total capital management cannot be generated from the company's own capital capacity, and as such, it cannot benefit shareholders. From the research conducted on state-owned enterprises, the average ROE value is determined to be 0.144214, due to how close the value is to 0, it can be inferred that the profitability of these companies is low. The Signaling Hypothesis by Mondigliani-Miller demonstrates that a surge in earnings forecasts a favorable future income for investors through an increase in dividends (Atmaja, 2008).

A higher ROE is linked to a better opportunity for a company to distribute dividends to shareholders. Following this, if ROE is markedly low, the company is underperforming as it shows the incapability of the company's management to manage the company at an acceptable performance threshold; therefore, this demonstrates the low opportunity to pay dividends to shareholders. These research's findings are in concert with the study conducted (Karauan, Murni, and Tulung, 2017), however they are not in line with that of (Barros, Verga Matos and Miranda Sarmento, 2020; Baker et al., 2019).

4.5.4 The effect of capital structure on dividend policy moderated by firm size

Firm size can moderate the connection between capital structure and dividend policy. The reason for this is that the companies used as samples in this research chose debt policy (DER) to achieve optimal capital structure, providing the company flexibility in determining its strategy to increase value. If the company value increases, dividend payments tend to increase. Through distributing dividends, management signals to the market that it believes the existence of future investment opportunities that are more promising for the company's value (Jogiyanto Hartono, 1998).

When expanding, a company with large assets will be funded by increasing debt or shares to preserve the company's standing, as it tends to maintain dividend payments. Conversely, a small company tends to pay minimal dividends because profits are directed as retained earnings used to increase assets. The agency cost theory states that dividend payments to shareholders increase with firm size and the proportion of shares owned by shareholders. This is because larger companies have the potential to generate greater income as well as higher dividend payments. These research's results are aligned with (Putra Simanjuntak, 2019).

4.5.5 The effect of business risk on dividend policy moderated by firm size

Firm size cannot moderate the connection between business risk and dividend policy. This demonstrates that a large company does not always distribute dividends to its shareholders. For its internal purposes, the company will retain profits in order to realize greater company growth, as opposed to distributing these profits to its shareholders. The high level of risk within the company does not affect the distribution of dividends to shareholders, as such, the company's internal policies regarding dividend distribution and its other policies are unaffected by these business risks. These results are in consonance with the study conducted (Khan and Ahmad, 2016).

4.5.6 The effect of return on equity on dividend policy moderated by firm size

Firm size cannot moderate the connection between return on equity and dividend policy. Net income is not the main factor that must be given consideration by management when creating decisions to determine the amount of dividends to be distributed, as even with very low net profit generated, companies still pay dividends to shareholders. The results of this study are in line with the study conducted by (Lismawati and Suryanto, 2017).

5. Conclusion

The goal of this study is to investigate the variables that affect dividend policy in state-owned businesses and their affiliated companies that are listed on the Indonesia Stock Exchange for the years 2015 to 2020. Based on the data analysis and review of the research, it can be said that capital structure influences

dividend policy. This is because a company's obligations grow in direct percentage to the amount of debt that is used in its capital structure. The amount of net profit that shareholders can receive, including dividends that will be paid, will also be impacted by the growth in debt because these commitments take precedence over paying dividends. DER has a negative impact on the dividend payout ratio since a higher debt load will limit the company's capability to pay out dividends.

Furthermore, the dividend policy is unaffected by company risk. As a result, it may be claimed that a company's level of risk does not influence the dividend it pays to shareholders.

Risks associated with broad economic and market factors are not related to individual company factors. The company's internal policies regarding dividend distribution and other policies are not affected by these risks. The results of this study are strengthened by the bird in hand theory, which dictates that investors prefer to accept dividends rather than retained earnings.

We also found that return on equity (ROE) does not affect dividend policy. This means that total capital management cannot be generated from the company's own capital capacity, and so, it cannot benefit shareholders. From the study conducted on SOEs, it is found that the profitability of the company is remarkably low, which demonstrates the incapability of the company's management to manage the company at an acceptable performance threshold; therefore, this demonstrates the low opportunity to pay dividends to shareholders.

Firm size can moderate the connection between capital structure and dividend policy. The reason for this is that the companies used in this study chose debt policy (DER) to achieve optimal capital structure, providing the company flexibility in determining its strategy to increase its value. If the company value increases, dividend payments tend to increase. Through distributing dividends, management signals to the market that it believes the existence of future investment opportunities that are more promising for the company's value. When expanding, a company with large assets will be funded by increasing debt or shares to preserve the company's standing, as it tends to maintain dividend payments. Conversely, a small company tends to pay minimal dividends because profits are directed as retained earnings used to increase assets. The agency cost theory states that dividend payments to shareholders increase with firm size and the proportion of shares owned by shareholders. This is because larger companies have the potential to generate greater income as well as higher dividend payments.

However, firm size cannot moderate the connection between business risk and dividend policy. This demonstrates that a large company does not always distribute dividends to its shareholders. For its internal purposes, the company will retain profits in order to realize greater company growth, as opposed to distributing these profits to its shareholders. The high level of risk within the company does not affect the distribution of dividends to shareholders, as such, the company's internal policies regarding dividend distribution and its other policies are unaffected by these business risks. In addition, firm size cannot moderate the connection between return on equity and dividend policy. Net income is not the main factor that must be given consideration by management when creating decisions to determine the amount of dividends to be distributed, as even with very low net profit generated, companies still pay dividends to shareholders

Limitations and future studies

We acknowledge several limitations within this study which warrants future studies. First, the rejected hypotheses were likely to be caused by the limited sample size. EViews require a large sample size, which cannot be the case with the sample selected, as state-owned companies and their subsidiaries registered on the IDX only lists 28 companies. It is recommended for future studies to account for this limitation and use other types of companies as their samples. Furthermore, future studies can change the firm size to be an independent variable, rather than a moderating one, as the case with this study, firm size only moderates the connection between capital structure and dividend policy, while being unable to moderate business risk and return on equity on dividend policy.

Future research is needed due to a number of limitations in this study. The first is that there were only 28 BUMN companies and subsidiary companies listed on the IDX, which is too few to use EViews as an analysis tool. It is therefore advised that potential researchers use samples from other types of companies to avoid the rejection of the rejected hypothesis. In addition, future researchers can also change company size to an independent variable (not moderation) because in this study company size is only proven to moderate the connection between capital structure and dividend policy while company size is proven unable to moderate business risk and return on equity on dividend policy.

Acknowledgment

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