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Conference Paper

Analysis of the Factors Influencing Dividend Policy: Evidence of Indonesian Listed Firms

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Abstract

The purpose of this study is to determine the influences of the company variables to dividend policy of firms. There are four hypotheses draw for this study to increase our understanding of the effect and relationship of dividend payout of firms, such as sales, profitability, companies' debt, and assets growth. The data used were the financial reports of manufacturing company that were obtained through IDX from 2013–2016. Four hypotheses, which relate to dividend payout such as sales, assets growth, profitability and debt financing, were tested in this research. Regression analysis indicated that profitability, sales and assets growth have positive significant influence to dividend payout but debt has negative significant.

Keywords: dividend payout, sales, assets growth, profitability and debt financing

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1. Introduction

Company condition is reflected from the Financial Statement that has been presented, because in the Financial Statement there is an information needed by external parties and internal parties. The Financial Statement is a means to conduct a communication activity between the management and the shareholders. The purpose of Financial Statements prepared by the management is to provide information ranging from financial position, financial performance and cash flow statement of a company useful for decision-making. In this case between the management and the shareholders are expected to communicate with each other with clear information so that corporate goals can be achieved. Companies that are able to distribute dividends to shareholders are considered to have good performance because it is assumed able to record profits and pay attention to the investors. However, management often has difficulty in making decisions related to dividends. This is because investors prefer dividends to be distributed, but on the other hand management is more interested in using those profits to increase capital for future investment financing [8]. Dividend policy is considered at the very core of corporate finance. In this study, the investors will like

to determine the factors that affecting dividend payout decision and how dividend decision affect the value of the firms. The expected dividend payout is influenced by many factors such as after tax earnings, availability of cash, shareholders expectation, expected future earnings, liquidity, leverage, return on investment, industry norms as well as future earnings. In this study, factors that influence dividend payout such as stability in debts ratio, assets growth companies, profitability and sales of the firm will be identified [7].

2. Literature Review

A firm's dividend policy refers to its choice of whether to pay shareholders a cash dividend, how large the cash dividend should be, and how frequently it should be distributed. In a broader sense, dividend policy also encompasses decisions such as whether to distribute cash to investors via share repurchases or specially designated dividends rather than regular dividends, and whether to rely on stock rather than cash distributions [9]. The firm's dividend policy includes two basic components. First, the dividend payout ratio indicate the amount of dividends pay relative to the company's earnings. The second component is the stability of the dividends over time. In formulating a dividend policy, a manager of a firm faces trade-offs. Assuming that management has already decided how much to invest and has chosen its debt-equity mix for financing these investments, the decision to pay a large dividend means simultaneously deciding to retain little, if any, profits; this is turn result greater reliance on external equity financing which may costly for a firm [6].

One of the most critical arguments of financial literature has been dividend policy. Dividend has two important aspects. First, it is an effective element of corporations' investment. On the one hand, the higher the dividend paid out, the lower will be corporations' internal resources for performing investment projects, while outsourcing requirement will increase which is an effective element of the stock price. On the other hand, many corporate shareholders demand cash dividends [13]. Thus, managers should always equilibrate between different interests of shareholders so that they could utilize investment profitable opportunities and would pay required cash dividends for some shareholders. Therefore, a dividend decision by corporations' managers is very sensitive and important as well. There is no doubt that when deciding about income, managers should consider their outcomes. Conversely, given the firm's investment and financing decisions, a small dividend payment corresponds to high profit retention with less need for externally generated equity funds will give a lower

cost for a firm. Normally if the cost of paying dividend is higher than retention earning, it is more beneficial for firm to retain its earnings [11].

A dividend policy is a company's approach to distributing profits back to its owners or stockholders. If a company is in a growth mode, it may decide that it will not pay dividends, but rather re-invest its profits (retained earnings) in the business. If a company does decide to pay dividends, it must then decide how often to do so, and at what rate. Large, well-established companies often pay dividends on a fixed schedule, but sometimes they also declare 'special dividends'. The payment of dividends impacts the perception of a company in financial markets, and it may also have a direct impact on its stock price. As discussed earlier, there are some factors which affected the dividend payout ratio, there the hypothesis and explanation as follows:

H_1: There is positive association between the companies' debt and the dividend payout. Of course high leverage companies need a lot of funds to service their debt, and as we know servicing debt is very expensive. Therefore, they have to allocate the high portion of their earning for that purpose and directly will reduce the amount of earnings to be paid as dividend. In addition, high leverage firms have the possibilities of constraints by possible rules and regulation imposed by the debtors called debt covenants [8].

H_2: There is positive association between firms' asset growth with the dividend payout. The higher the growth rates of the companies, the greater the need for funds to finance the expansion. Therefore, there a possibilities that companies will reserve the higher portion of earnings to finance the growth, hence it will result in low dividend's payment [1].

H_3: There is a positive relationship between the profitability by the companies with the dividend payout to shareholders. Profitability is considered as the most important factors associated with the dividend policy choices. It is understood that the firms, which experience stable earnings, can predict its future earning with higher accuracy and hence can predict stable dividend policy. Thus, firm can commit to pay higher dividend payment if they can predict higher earnings (John and Muthusamy, 2012).

H_4: there is positive association between the companies' sales growth and the dividend payout. The higher the sales growth of the companies, the grate will be the dividend payout. Firms experiencing or anticipating higher sales growth will have lower dividend payout ratios because of investment opportunities and expected NPV projects [1].

The relationship among variables describes as follow:
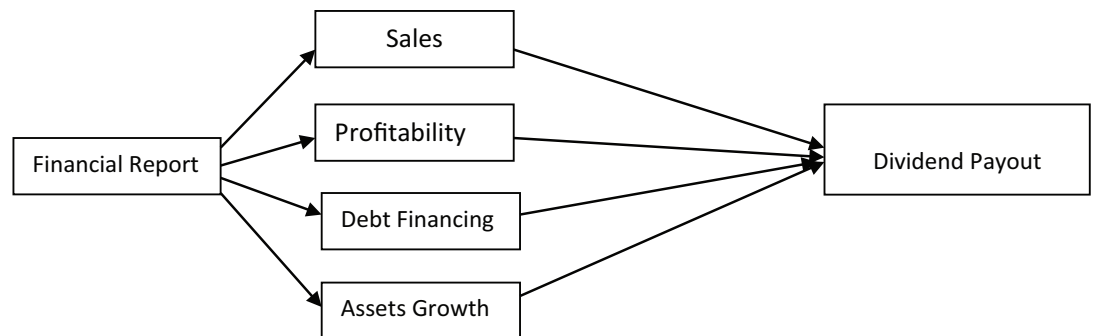
3. Methods

This study aims to examine the factors determining dividend payout ratio among the listed firms in the Indonesian Stock Exchange. This chapter discusses four important parts to achieve the aims of this study. The first part consists of the determinants of dividend payout ratios, second is sampling, third: selection data, and the last sections is empirical model and explanations of variable.

A sample of 80 firms continuously traded firms from the Indonesia Stock exchange (IDX) from 540 firms was selected. A sample firm must have a typical dividend payout ratio ranging from 0 to 1. Data for calculating all the variables must be available for that firm. The selection of the sample was based on the criteria, that the 80 firms were randomly selected and for 4 years total data are 320. Each sample companies must be listed on the IDX during the year of sampling from year 2013–2016. The study is based on the secondary data. Sources of those data had been collected from individual Firm Annual Reports (company database), which is available in the IDX Online. This research has used historical information and statistical methods ANOVA to examine the relationship between variables and to test the hypotheses. Required information was collected through different annual and financial reports. Regression analysis methods were used to analyze the statistical tests and SPSS software was used to process information.

This study adopted standard multivariate regression model to determine the possible factors that will influence the companies' dividend policy decision. A few variables have been identified including the companies earning, growth, size, and debt were used to determine the factors that influence the dividend policy decision.

The model used in the study:

$$Y = \alpha + \sum \beta X + \acute{\varepsilon}$$

α, β' = parameter of regression

έ = Residual error

Where Y = Dividend Pay Out (DPO) of companies. This variable had been from:

$$\frac{\text{Dividend per share}}{\text{Earnings per share}}$$

Or

Dividend Payout = Dividend/earnings = Dividend per share/EPS

Dividend policy means the rationale under which a firm determines what it will pay in dividends. The dividend payout ratio is the ratio of the dividends paid to earnings. For example, if a company paid out $1 per share in annual dividends and had $3 in EPS, the DPR would be 33% ($1/$3 = 33%). The real question is whether 33% is good or bad and that is subject to interpretation. Growing companies will typically retain more profits to fund growth and pay lower or no dividends. Companies that pay higher dividends may be in mature industries where there is little room for growth and paying higher dividends is the best use of profits [4].

There are two different tests that will be used to analyze the data, (1) descriptive test to analyze the central tendency and dispersion of the data and (2) regression analysis to ascertain the relationship between dependent variable and independent variables.

The equation is:

Y predicted = b0 + b1*Sales + b2*Tot Debt + b3*Profit +

DEBT = DEBT is debt to equity ratio which is companies leveraged measured by (long term debt/total equity). It explained the ratio of debt to the availability of equity used in the company's operations. It is expected that the higher leverage of companies will give negative relationship to companies' dividend payout. This is due expensive cost of debt. Companies with higher leverage need a lot of funds to service their debt [1].

Debt = Long term debt/Equity

AGR = Assets Growth Rate as proxy for growth. It is an average of expansion or contraction, which is measured by change in total assets divide total assets $_{(t-1)}$. This is another operational variable proxy for growth. Murtaza and Ahmed (2015) had used this variable proxy for growth in their studies on dividend policy. The positive sign shows the investment expansion and the negative sign indicate investment activities. It is expected that growth proxy will have a negative relationship with the dividend

policy. This is to understanding that firms will allocate more funds to finance investment and less for dividend payments.

$$\text{Assets Growth} = \text{Change in Total Assets}_{(t-1)}/\text{Total Assets}$$

PRFT = Net Income available for year t to the sales of year t. This variable represents proxy for profitability for the companies. Murtaza and Ahmed (2015) had used this variable as a proxy for profitability in their studies on dividend policy. It is expected that this variable will show positive relationship to dividend payout. This assumption is due to the studies done by scholars where most of the studies showed that profits are very important determinant of dividend policy [2].

$$\text{Net profit margin} = \text{Net profit}/\text{Sales}$$

LOGSALES = Natural log of sales as proxy for growth. Abor and Fiador (2013) used sales gate growth as an investment opportunity proxy. Frankfurter et al. (1997) conclude that firms experiencing or anticipating higher sales growth will have lower dividend payout ratios.

4. Results

The research methodology and data collection was explained in the previous section. All the findings researcher figures gathered during the data collection processed. The analysis was done using simple random sampling of 85 manufacturing firms (out of the 2013 listed manufacturing firms on 2016) to examine the overall results of the financial determinant of dividend policy in Indonesian listed firms.

TABLE 1: Model summary.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0,6056 (a)	0,4417	0,4122	0,70589768621

Note: (a): Predictors: (Constant), Assets Growth, Profit, Total Debt, Sales.

Statistical output allows researcher to specify multiple models in a single regression command. This tells researcher the number of the model being reported. R is the square root of R-Squared and is the correlation between the observed and predicted values of dependent variable. R-Square is the proportion of variance in the dependent variable (dividend per share) which can be explained by the independent variables (assets growth, profit, total debt, sales). The first measure in the table is called R. This is a measure of how researcher our predictors predict the outcome, but researcher need

to take the square of R to get a more accurate measure. R-squared varies between 0 and 1. In this case it is 0,4122, so 41% of the variance in dividend per share test scores can be explained by the independent variables (assets growth, profit, total debt, sales) test scores. (Note: This does not imply causality.) Std. Error of the Estimate, this is also referred to as the root mean squared error. It is the standard deviation of the error term and the square root of the Mean Square for the Residuals in the ANOVA (Table 3).

TABLE 2: ANOVA.

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	48,338	5	9.668	22.263	0.000[a]
Residual	40,820	314	0.434		
Total	89,157	319			
a. Predictors: (constant), Assets Growth, Profit, Tot Debt, Sales					
b. Dependent Variable: Div/Share					

5. Discussion

Table 4 looking at the breakdown of variance in the outcome variable, these are the categories researcher will examine: Regression, Residual, and Total. The Total variance is partitioned into the variance which can be explained by the independent variables (Model) and the variance which is not explained by the independent variables (Error). Sum of Squares – These are the Sum of Squares associated with the three sources of variance, Total, Model and Residual. The Total variance is partitioned into the variance which can be explained by the independent variables (Regression) and the variance which is not explained by the independent variables (Residual). For df. these is the degrees of freedom associated with the sources of variance. The total variance has N-1 degrees of freedom. The Regression degrees of freedom correspond to the number of coefficients estimated minus 1. Including the intercept, there are 5 coefficients, so the model has 6 – 1 = 5 degrees of freedom. The Error degrees of freedom were the DF total minus the DF model, 99 – 5 = 94. Mean Square – These are the Mean Squares, the Sum of Squares divided by their respective DF. F and Sig. – This is the F-statistic the p-value associated with it. The F-statistic is the Mean Square (Regression) divided by the Mean Square (Residual): 9.668/0.434 = 22.263. The p-value is compared to some alpha level in testing the null hypothesis that all of the model coefficients are 0.

TABLE 3: Coefficients.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta	B	Std. Error
1 (Constant)	−5.590	1.655		−3.377	0.001
Sales	0.192	0.018	0.0250	2.839	0.006
Tot Debt	−0.044	0.053	0.057	0.752	0.054
Profit	0.157	0.055	0.218	2.984	0.003
Assets Grow	−0.307	0.027	0.396	2.352	0.009

The column of estimates provides the values for b_0, b_1, b_2, b_3 and b_4 for this equation. For sales for every unit increase in sales, researcher expect 0.192 unit increases in the sales score, holding all other variables constant. For total debt the coefficient for total debt is −0.044. So for every unit increase in total debt, researcher expects an approximately −0.044 point increase in the dividend payout, holding all other variables constant. For the profit, the coefficient for profit is 0.157. So for every unit increase in profit, researcher expects a 0.157 point increase in the dividend payout score. The same for asset growth the coefficient for profit is −0.307. Therefore for asset growth for every unit decrease in dividend payout, researcher expects a −0.307 point decrease in the dividend payout. Std. Error, these are the standard errors associated with the coefficients. For Beta, these are the standardized coefficients. These are the coefficients that researcher would obtain if researcher standardized all of the variables in the regression, including the dependent and all of the independent variables, and ran the regression. By standardizing the variables before running the regression, researcher have put all of the variables on the same scale, and researcher can compare the magnitude of the coefficients to see which one has more of an effect. Researcher will also notice that the larger betas are associated with the larger t-values and lower p-values. For t and Sig. these are the t-statistics and their associated 2-tailed p-values used in testing whether a given coefficient is significantly different from zero.

6. Conclusion

This study examined the relationship between dividend payout and several variables such as: leverage, profitability, asset growth, sales for 3 periods from 2013 up to 2016. Past studies have rarely investigated the effect of dividend policy on manufacturing listed firms especially with four independent variables together on manufacturing firm. The result in general shows that there are significant descriptions between sales, debt financing, profitability to dividend payout. Assets growth rate negatively influenced

DPO. Profitability proxy, represented by PRFT, which is positively related with dividend payout, is a significant determinant of dividend payout.

This study is limited to a few constraints. Due to time constraint and availability of the data, the study only covers a period of 4 years (2013 to 2016) with 80 firms. The number of firms chosen is only 80 out of the IDX 250 manufacturing firms listed in Indonesia Stock Exchange. This might not give accurate representation of the overall Indonesian company dividend policy. The study only focused on those companies who paid dividends. There is no comparison between firms, which pay dividend, and firms, which do not pay dividends. So, omitting firms has choose not to pay dividend may have bias result. Suggestion for the future research should overcome the limitations and cover other important areas that are not examined. It is recommended that more-in-depth study can be done using few models in order to increase the accuracy of the result. It is also important to use a bigger number of samples from various firms. This will help to generalize the study.

References

[1] Abor, J. & Fiador, V. (2013). Does corporate governance explain dividend policy in sub-Saharan Africa? *International Journal of Law and Management*, vol. 55, pp. 201–225.

[2] Al-Kuwari, D. (September 2009). Determinants of the dividend policy in emerging stock exchanges: The case of GCC countries. *Global Economy & Finance Journal*, vol. 2, no. 2, pp. 38–63.

[3] Baker, H. R. and Powel, G. E. (1999). How corporate managers view dividend policy? *Quarterly Journal of Business and Economics*, vol. 38, no. 2, pp. 17–35.

[4] Essa, M. S., et al. (2012). A worthy factors affecting dividends policy decisions: An empirical study on industrial corporations listed in Amman stock exchange. *Interdisciplinary Journal of Contemporary Research in Business*, vol. 4, no. 5.

[5] Frankfurter, G. M. and Wood, Jr., B. G. (1997). The evolution of corporate dividend policy. *Journal of Financial Education*, vol. 23, pp. 16–33.

[6] Frankfurter, G. M. and Wood, Jr., B. G. (2002). Dividend Policy theories and their empirical tests. *International Review of Financial Analysis*, vol. 11, pp. 111–138.

[7] John, F. and Muthusamy. (2010). Leverage, growth and profitability as determinants of dividend payout ratio-evidence from Indian paper industry. *Asian Journal of Business Management Studies*, vol. 1, no. 1, pp. 26–30.

[8] Kun, L. and Chung, S. (2012). The impact of corporate governance on the relationship between investments opportunity and dividend policy: An endogenous switching model approach. *Asia-pacific Journal of Financial Studies*, vol. 41, pp. 125–145.

[9] Lipson, M. L., Maquieira, C. P., and Megginson, W. (1998). Dividend initiations and earnings surprises. *Financial Management*, vol. 27, pp. 36–45.

[10] Miller, M. H. and Scholes, M. S. (1982). Dividend and taxes: Some empirical evidence. *Journal of Political Economy*, vol. 90, pp. 1118–1141.

[11] Murtaza, H. and Ahmed, S. (2015). Critical analysis of the factor affecting the dividend payout: Evidence from Pakistan. *Journal of Economics, Finance and Management Sciences*, vol. 3, no. 3, pp. 204–2012.

[12] Partington, G. H. (1985). Dividend policy and its relationship to investment and financing policies: empirical evidence. *Journal of Business Finance & Accounting*, vol. 12, no. 4 (Winter), pp. 531–542.

[13] Salehi, M. and Biglar, K. (2009). Study of the relationship between capital structure measures and performance: Evidence from Iran. *International Journal of Business and Management*, vol. 4, no. 1, pp. 97–103.