EFFECT OF DEBT TO EQUITY RATIO, RETURN ON ASSET, AND FIRM SIZE TO DIVIDEND PAYOUT RATIO IN MANUFACTURING COMPANIES LISTING ON THE INDONESIAN STOCK EXCHANGE

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ABSTRACT

The purpose of this study was to determine and analyze the simultaneous and partial effects of Debt to Equity Ratio (DER), Return on Assets (ROA), and Firm Size on Dividend Payout Ratio (DPR) variables in manufacturing companies listed on the Indonesia Stock Exchange (IDX). The samples taken in this study were 2 (two) manufacturing companies. The analysis technique in this study used panel data regression with the help of the Eviews 10 application program. The results of the study concluded that DER, ROA, and Firm Size simultaneously have a positive and significant effect on the DPR, meaning that an increase in DER, ROA, and Firm Size can spur an increase in the DPR. DER has a statistical t value of 5.226727 with a significance value of 0.0347, so it can be concluded that DER has a significant positive effect on the DPR. ROA has a negative and insignificant effect on the DPR because ROA has a statistical t value of -3.148824 and ROA obtains a significance value of 0.0878. Meanwhile, Firm Size has a negative statistical t value of -3.442042 with a significance value of 0.0450, so it can be concluded that Firm Size has a significant negative effect on the DPR. The results of the coefficient of determination show that the value of Adjusted R^2 is 0.999928 while the remaining 0.01% is influenced by other variables outside this research model.

Keywords: *DER, ROA, Firm Size, DPR*

INTRODUCTION

Development Investment is the placement of many funds at a time this is in the hope of obtaining profits in the future (Halim, 2005). One form of investment is capital market stocks. Stock investors can expect returns in the form of dividends or capital gains. Dividends are the share of the company's net profit to shareholders, while capital gains are the positive difference between the acquisition price of the shares and the market price of the shares. Gordon and Lintner (Brigham and Houston, 2001) in Wahyudi and Baidori (2008) stated that investors value the expected income from dividends more than the expected income from capital gains. Investors generally want a relatively stable dividend distribution because dividend stability can increase confidence in the company.

The objective company from the point of view of financial management is to maximize the prosperity of shareholders or stockholders. Nuringsih (2005) stated that financial management is one of the strategic functions related to financial management. This management is intended so that the company can generate profits to increase the value of the firm and improve the welfare of shareholders. The financial manager tries to manage the company's financial assets by focusing on three decisions, namely financial decisions, investment decisions, and dividend policy.

The higher it is dividend payout ratio will benefit investors but from the side of the company it will weaken internal finances because it reduces retained earnings, but conversely, the smaller the dividend payout ratio will be detrimental to shareholders (investors) but the company's internal finances are getting stronger. The dividend payout ratio or dividend policy is essentially determining the portion of profits that will be distributed to shareholders, and which will be retained as part of retained earnings (Risaptoko, 2007). The company's dividend policy is reflected in the dividend payout ratio, namely the percentage of profits distributed in the form of cash dividends, which means that the size of the dividend payout ratio will affect the investment decisions of shareholders and on the other hand will affect the company's financial condition.

According to Horne (2005), evaluating the effect of the dividend payout ratio on shareholder wealth can be done by looking at the company's dividend policy as a funding decision that involves retained earnings. Each period, the company must decide whether the profits earned will be retained or distributed in part or whole to shareholders as dividends.

The dividends Payout Ratio (DPR) is the percentage of profit paid in dividends. Consideration of the size of a Dividend Payout Ratio (DPR) is related to management performance, one of which is the financial performance of a good company that is expected to be able to determine the size of the DPR under the expectations of shareholders who invested in the company (Indarto, 2011: 52).

In research conducted by Prihantoro (2003), the DER variable has an effect significantly negative to the DPR. This result contradicts research conducted by Usman (2003) which states that DER has a significant positive effect on cash dividends. In the research by Marlina and Danica (2009) and Puspita (2009), DER was stated to have no significant effect on the DPR.

Firm size is the size of the company. Many previous studies have been conducted to determine the effect of firm size on the dividend payout ratio. Al Najjar (2016) found that firm size has a significant positive effect on the dividend payout ratio. Large firm size allows the company to pay larger dividends. The results of this study are consistent with previous research conducted by Mehta (2012) and Hejazi and Moshtaghin (2014). However, Shubiri (2011) found different results which stated that firm size had a significant negative effect on the dividend payout ratio, while Nerviana (2015) found that firm size did not affect the dividend payout ratio.

Results research conducted by Chang and Rhee (1990) and Harjono (2002) states that firm size is stated to have a positive and significant effect on the DPR. This contradicts the research conducted by Jensen et al. (1992), Nurhaini (2002), and Hatta (2002) with the result that firm size does not have a significant effect on the DPR (Dividend Payout Ratio). The higher capital structure owned by debt causes management to prioritize paying off obligations before distributing dividends.

Based on Previous studies have shown inconsistent and different results, causing researchers to be interested in conducting further research on the factors that influence the dividend payout ratio. This study

uses the financial ratios Debt to Equity Ratio, Return on Assets, and Firm Size as independent variables and the Dividend Payout Ratio as the dependent variable. Researchers chose manufacturing companies because manufacturing companies are the most listed companies on the Indonesia Stock Exchange and the manufacturing industry is the most superior sector in the Indonesian economy at this time, thus enabling high dividend payouts.

LITERATURE REVIEW
Dividend Concept

Dividends are the distribution and income earned by the company to shareholders (Syamsuddin, 2011:30). The definition of dividend according to Brigham and Houston (2009:172), the dividend is the distribution of profits to equity investment holders by their proportions and certain types of capital. Meanwhile, according to Sugiyono (2009:173), dividends are company income distributed to shareholders. Sugiyarso and Winarni (2005: 101) explain the meaning of dividend policy, namely "Management's decision to determine the treatment of Earning After Tax (EAT), whether distributed as dividends, reinvested, or part of the dividends is reinvested in the company, that is what is called dividend policy. (Dividend policy)".

Forms of Dividend Payment

According to Halim (2006: 94), there are three forms of dividend payments, namely dividends in stable rupiah amounts, dividends with a constant payout ratio, and low fixed dividends plus extra dividends.

1. Dividends in rupiah amounts are stable

    Many companies operate a stable dividend payout policy, meaning that dividends per share paid each year are relatively fixed for a certain period even though earnings per share and year fluctuate. This stable dividend payment can give the impression to investors that the company has good prospects in the future.

2. Dividends with a constant payout ratio

    Some companies make dividend payments based on a certain percentage of profits. Because profits fluctuate, implementing this policy will result in the number of dividends in the rupiah will fluctuate.

3. Low fixed dividend plus extra dividend

    This dividend payment is only a modification of methods 1 and 2 above. This policy gives companies flexibility but leaves investors a little unsure about how much their dividends will be. If the company's profits fluctuate greatly, this policy will be the best choice.

Dividend Payout Ratio (DPR) concept

Dividend Payout Ratio (DPR) is a ratio that shows the value of dividends distributed by the company to investors. Often a dilemma for companies in carrying out the dividend policy itself. On the one hand, investors demand to distribute some dividends after an agreement at the General Meeting of Shareholders to gain confidence in the sustainability of the company's prospects in the future, on the other hand, the company wants to retain its profits for investment development to enlarge the company.

Munawir (2002) revealed that the dividend payout ratio is the result of a comparison between dividends and profits available to ordinary shareholders. This statement is comparable to that expressed by Ang (1997), stating that the dividend payout ratio is the ratio between dividend per share and earnings per share.

The concept of Debt to Equity Ratio (DER)

Debt to Equity Ratio (DER) is a ratio that shows the percentage of provision of funds by shareholders to lenders (Darsono, 2005). The greater the debt-to-equity ratio, the greater the loan capital so it it will cause a greater burden of debt (interest costs) that must be borne by the company. The greater the debt burden of the company, the number of profits distributed as cash dividends will decrease. Thus, a high debt-to-equity ratio

has an impact on the smaller company's ability to distribute cash dividends, and vice versa. A high debt-to-equity ratio also indicates a condition where the proportion of own capital is low in asset financing. In addition, for creditors, it can lead to assumptions that these conditions are a signal of a large risk from the company. With this condition, it is possible to pay quite a large interest and limit the company's ability to obtain money from outside sources. Therefore, the higher this ratio, the greater the risk faced, and investors will ask for a profit level. In other words, the relationship between debt to equity ratio and cash dividends is negative. Debt to equity ratio can be known from the comparison between total debt and total equity.

The concept of Return On Assets (ROA)

Return on Assets is used to measure the effectiveness of the company in generating profits by utilizing its assets. This ratio is the most important ratio among existing profitability ratios (Ang, 1997). Companies that have high profitability will attract investors to invest their capital in the hope of getting high profits as well. The greater the ROA, the better the company's performance because the return on investment (return) is also getting bigger. ROA is calculated by dividing the level of profit after tax by total assets (Sri Sudarsi, 2002).

Therefore dividends taken from net profits will affect the dividend payout ratio. Companies with greater profits will pay a larger portion of their income as dividends (Sudarsi 2002). The higher the profitability of the company, the higher the cash flow in the company, and it is hoped that the company will pay higher dividends (Jensen, Solberg, and Zorn, 1992) in Fitri Ismiyanti and Mahadwartha (2005). Return on Assets (ROA) is the level of net profit that the company has successfully obtained in carrying out its operations.

Return on Assets is measured from net profit after tax (earnings after tax) to its total assets which reflect the company's ability to use investments used for company operations to generate company profitability. The greater the ROA, the better the company's performance because the return on investment (return) is getting bigger.

Firm Size Concept

Company size is also an influencing factor in dividend distribution decisions. An established company will have easy access to the capital market so that it can obtain larger funds and the company can have a higher dividend payout ratio (Michell Suherli and Sofyan S. Harahap, 2004). Company size is the average total net sales for the year in question over several years. In this case, sales are greater than variable costs and fixed costs, and the amount of income before tax will be obtained. Conversely, if sales are less than variable costs and fixed costs, the company will suffer losses (Brigham and Houston 2001). The condition desired by the company is the acquisition of net profit after tax because it is increasing its capital.

Conceptual Framework

The conceptual framework is a model that explains how the relationship of a theory with important factors has been known in a particular problem. The conceptual framework will link the research variables, namely the dependent and independent variables. The conceptual framework is a synthesis or extrapolation from a theoretical review and is a requirement for solving research problems and formulating problems.

The dividend Payout Ratiodetermined by the Debt to Equity Ratio, this is in accordance with the opinion expressed by (Anjani, 2015). That is, the higher the liability of a company, the lower the company's ability to pay dividends to shareholders. This is in line with the opinion expressed by (Anjani, 2015), that Return on Assets is related to the Dividend Payout Ratio. That is, the better the Return on Assets, the greater the profit you get. Besides that, the Dividend Payout Ratio is also influenced by Return on Assets, namely companies with high ROA values are able to generate higher profit levels than companies with low ROA. Therefore, companies that are able to generate high ROA will also pay high dividends. The dividend Payout Ratio is also determined by Firm Size, this is the opinion expressed by (Rizki, 2012), that Firm Size is related to the Dividend Payout Ratio. That is, the size of the company shows the size of a company as indicated by the total assets, the number of sales, and the average total assets owned by the company.

Based on the background of the problem and the theoretical basis, a conceptual framework for this study can be made which is described as follows:

Figure 1. Research Conceptual Framework
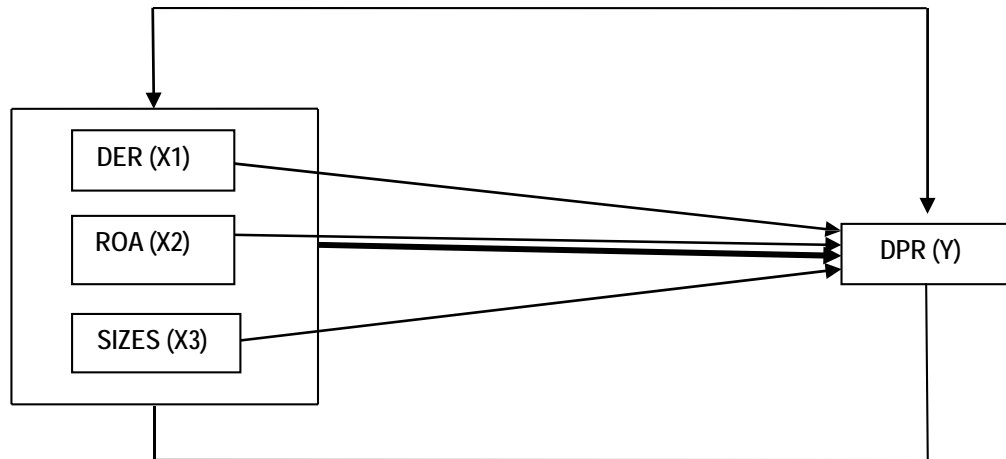
Hypothesis

According to Sugiyono (2009), the hypothesis is a temporary answer to the research problem formulation, therefore the research problem formulation is usually arranged in the form of a statement sentence. It is said to be temporary because the new answers given are based on empirical facts obtained through data collection. So the hypothesis can also be stated as a theoretical answer to the research problem formulation, not yet said to be an empirical answer. In this study entitled "The Influence of Debt to Equity Ratio, Return on Assets and Firm Size on the Dividend Payout Ratio", the hypothesis proposed is as follows:

1. Debt to Equity Ratio, Return on Assets, and Firm Size has a significant positive effect on the Dividend payout Ratio.
2. Debt to Equity Ratio significant positive effect on the Dividend Payout Ratio.
3. Return on Assets significantly positive effect on the Dividend Payout Ratio.
4. Firm Size significant positive effect on the Dividend Payout Ratio.

RESEARCH METHODS
Object of Research

The object of this research is the financial statements of manufacturing companies listed on the Indonesia Stock Exchange (IDX) with the ratios that are the object of this research being the Debt to Equity Ratio (DER), Return on Assets (ROA), and Firm Size (Size). Financial data used from 2014-2018.

Population

A population is an object or subject that meets certain criteria that have been determined by the researcher. Sugiyono (2017: 80) states that what is meant by population is a generalization area consisting of objects that have certain qualities and characteristics determined by researchers to study and then draw conclusions.

The population in this study is a registered manufacturing company on the IDX there are 2 companies consisting of 3 sectors, namely the basic and chemical industry sector, the various industrial sector, and the consumer goods industry sector. The research population is as follows:

Table 1. List of sample companies

No	Stock code	Company name
1	AKRA	AKR Corporindo Tbk
2	UNVR	Unilever Indonesia Tbk

Source: www.Idx.co.id

Sample

Sugiyono (2017: 81) states that the sample is part of the number and characteristics possessed by the population. This sampling must be done in such a way that the sample can truly represent (Representative) and describe the actual population.

The sample in this study was taken based on the purposive sampling technique, namely sampling based on certain considerations or criteria (Suharyadi, 2009:17). The considerations used in the sample research are:

1. Manufacturing companies that are active and listed on the IDX for the 2014-2018 period.
2. The company published its financial statements for the 2014-2018 period.
3. The company always distributes dividends during the 2014-2018 period.

Based on the sampling characteristics, 2 companies were obtained as research samples, namely AKR Corporindo Tbk (AKRA) and Unilever Indonesia Tbk (UNVR).

Data Collection Technique

To obtain the data needed in this study, the authors used documentation techniques from data published by manufacturing companies registered on the IDX, via the IDX's official website, namely www.idx.co.id.

Data Analysis Technique

In carrying out every economic activity in various sectors, of course, dividends are part of the company's net profit to shareholders. The company's dividend policy is reflected in the Dividend Payout Ratio, namely the percentage of profit distributed in the form of cash dividends, meaning that the size of the dividend payout ratio will affect the investment decisions of shareholders and on the other hand it will affect the company's financial condition.

The data analysis method used in this study is a model panel data regression. Panel data regression analysis is a method used to model the effect of predictor variables on response variables in several sectors observed from an object of research over a certain time. Data processing techniques are carried out using the Eviews 10 application program.

Panel Data Regression Analysis

According to Basuki (2016: 275), panel data is a combination of time series data and cross-section data. The panel data regression model has several advantages including, namely, elements of repeated cross-section research (time series), the number of research objects has an impact on more formative, varied data, reduced collinearity between variables, increased degrees of freedom, and panel data able to minimize the usual elicited by individual data regression. These advantages have an impact on not having to test classical assumptions in panel data (Al, 2011: 52). The panel data regression model formula is as follows:

$$Y_{it} = \alpha + \beta_1 X_{1it} + \beta_2 X_{2it} + \ldots B_n X_{nit} + \varepsilon$$

RESULT AND DISCUSSION
Panel Data Estimation Techniques
        The regression for panel data is a regression with a combination of time series from 2014 to 2018 and cross-section data covering 2 manufacturing companies. The reason for using panel data is to overcome problems that arise when there is a problem of omitted variables. In conducting the panel data test, the author uses the Eviews 10 application program. The following table is a panel data regression calculation with Eviews 10.

Table 2. Fixed Effect Models

Dependent Variable: DPR
Method: Panel Least Squares
Date: 08/01/21 Time: 21:12
Samples: 2014 2018
Period included: 5
Cross-sections included: 2
Total panel (balanced) observations: 10

Variables	coefficient	std. Error	t-Statistics	Prob.
C	6564,404	1905055	3.445781	0.0749
DER	-0.094592	18.09779	5.226727	0.0347
ROA	-1.845546	0.586107	-3.148824	0.0878
FS	-0.683370	197.6551	-3.442042	0.0450

Effects Specification

Cross-section fixed (dummy variables)

Weighted Statistics

R-squared	0.999928	Mean dependent var	929.9909
Adjusted R-squared	0.999676	SD dependent var	1926526
SE of regression	13.03715	Akaike info criterion	9.291213
Sum squared residue	339.9347	Schwarz criterion	9.442506
Likelihood logs	-41.45607	Hannan-Quin criter	9.125246
F-statistics	3967630	Durbin-Watson stat	2.544841
Prob(F-statistic)	0.000252		

Source: Results of Eviews 10 data processing

        From the calculation results of processing the data, the panel data regression equation is obtained as follows:

$$Yit = 6564.40it - 0.09X1\,it - 1.84X2\,it - 0.68X3\,it + \varepsilon$$

        According to Sunaryanto in Najihah (2015), negative constant values are not a problem as long as the independent variables are not equal to zero. The coefficients of the panel data regression equation above can be interpreted as follows:
   1. The constant (α) of 6564.40 means that without the influence of the independent variables, namely the debt-to-equity ratio, return on assets and firm size, the probability of the dividend payout ratio will be 6564.40.
   2. The direction of the effect of the debt-to-equity ratio (X1) on the dividend payout ratio is negative. This shows that if the debt-to-equity ratio decreases by 1 while other variables are considered constant, it

will increase the probability of the dividend payout ratio of 0.09 assuming other variables remain constant.

3. The direction of the effect of return on assets (X2) on the dividend payout ratio is negative. This shows that if the return on assets increases by 1 while other variables are considered constant, it will result in an increase in the probability of the dividend payout ratio of 1.84% assuming other variables are constant.

4. The direction of influence of firm size (X3) on the dividend payout ratio is negative.

This shows that if the firm size increases by 1 while other variables are considered constant, it will result in an increase in the probability of the dividend payout ratio of 0.68 assuming other variables are constant.

Table 3. Random Effect Models

Dependent Variable: DPR
Method: Panel Least Squares (Cross-section random effects)
Date: 08/01/21 Time: 21:13
Samples: 2014 2018
Period included: 5
Cross-sections included: 2
Total panel (balanced) observations: 10
Swamy and Arora estimator of component variances

Variables	coefficient	std. Error	t-Statistics	Prob.
C	46.61239	388.9862	0.119830	0.9085
DER	46.48058	25.51423	1.821751	0.1183
ROA	-0.844494	0.871122	-0.969432	0.3698
FS	-4.224354	37.82879	-0.111670	0.9147

Effects Specification			SD	Rho
Random cross-sections			0.000000	0.0000
Idiosyncratic random			18.46863	1.0000

Weighted Statistics				
R-squared	0.634315	Mean dependent var		63.79900
Adjusted R-squared	0.451473	SD dependent var		26.72161
SE of regression	19.79072	Sum squared residue		2350036
F-statistics	3.469192	Durbin-Watson stat		2.449230
Prob(F-statistic)	0.091025			

Unweighted Statistics				
R-squared	0.634315	Mean dependent var		63.79900
Sum squared residue	2350036	Durbin-Watson stat		2.449230

Source: Results of Eviews 10 data processing