

# THE FINANCIAL PERFORMANCE OF MANUFACTURING COMPANIES IN IDX AND SOME FACTORS THAT INFLUENCE

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**Abstract:** This study aims to examine some factors affecting the financial performance of manufacturing companies in the Indonesia Stock Exchange (IDX). This research uses data on the financial statements of 20 manufacturing companies listed on IDX in the period 2013-2017 and carried out share distribution facilities for their employees. This research model is a panel regression model done by testing the common effect model, fixed-effect model, and random effect model. Based on the Chow test and Hausman test, it is found that the best model in this study is the fixed effect model. The study results find that dividend policy, a share giving program to employees, and debt to equity ratio are significant factors affecting the financial performance of manufacturing companies in Indonesia. From these three factors, the debt to equity ratio is the dominant factor determining the financial performance of manufacturing companies, while investment decision does not significantly affect it. Future research studies can be carried out by focusing on other industrial sectors such as the Jakarta Islamic Index 70 and adding other macroeconomic variables.

**Keywords:** Financial Performance, Dividend Policy, Debt to Equity Ratio, Manufacturing Companies.

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The industrial sector is one sector that plays an important role in the economy of a country. In the Indonesian context, the manufacturing industry sector has shown a positive trend. Data from the Nikkei Market report show that manufacturing companies are currently perform-

ing well. That is stated in the Purchasing Manager Index (PMI) report. According to PMI, manufacturing in Indonesia is at a growing rate (in which the recruitment rate is better). The PMI value of the Indonesian manufacturing industry in February 2018 was over 50, to be more exact 51.4 (Rini, 2018).

The improved performance of a sector such as the industrial sector indicates that companies in the industry perform well. Good performance indicates the condition of the company to manage all com-



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pany resources efficiently. On the contrary, the industry that does not provide good performance is potentially said as an industry that is not efficient in managing all its assets (Matar and Eneizan, 2018).

A component of a company's performance that many researchers analyze is the company's financial performance. Financial performance is the vital goal undertaken by company managers for the company's existence in the future. Cappelli and Conyon (2017) explained performance appraisal is important because it takes time and sometimes is not liked by company managers. The company's financial performance is reflected in profitability generated by the company for a certain period. Profitability serves as an important indicator in assessing the company's success by its stakeholders (Roni et al., 2018).

Profitability is a milestone for companies to able to carry out operations in the short term, even in the long term (Alarussi Ali (2018) and Basu and Das (2017). In its application, the use of profitability measures in measuring company performance varies because the characteristics of the company itself strongly influence it. Weidman Stephanie (2019) revealed this by examining the profitability of manufacturing companies in America, Germany, and Japan.

Some previous studies on the profitability of manufacturing companies found various results. Richter and Schrader (2017), who examined 1115 companies in Europe, explained that giving shares to employees affects the company's profitability. However, Kim and Patel (2017), who used data from other European companies, found that giving shares to employees has no impact on profitability. Vātavu (2015) researched 9359 manufacturing companies in Croatia and found that profitability is more determined by economic factors such as labor costs, industrial concentration, age, gross domestic product, and firm size. Dimitriæ et al. (2019), who used data from 196 Romanian companies, documented that the capital structure affects profitability. That means that companies in Romania are not profitable enough only to use internal funds for their investments. Research by Dalci (2018) on the hotel industry in the Mediterranean country found that factors affecting profitability are not the same in every coun-

try. For instance, leverage affects profitability in hotel companies except for those in Greece.

In Asia and Africa, research conducted by Nhung and Okuda (2015), using data from 1503 Chinese companies, found that leverage (debt level) affects profitability which strongly depends on the condition of the company. For bankrupt companies, leverage affects negatively, and for those with good leverage has a positive effect. Nanda (2018), based on their research in Vietnam, explained that capital structure is in accordance with theories supporting profitability in Small and Medium Enterprises.

Research on manufacturing companies in India conducted by Jaisinghani and Kanjilal (2017) showed that leverage discourages the company's profitability. Chadha and Sharma (2015) found that capital structure positively influences the profitability of Small and Medium Enterprises. Das and Swain (2018) argued that there is no correlation between financial leverage and profitability. Rajverma (2019) revealed that there has a relationship between capital structure and profitability. Alarussi Ali (2018), researching in Malaysia, revealed that leverage negatively affects the firm's profitability. Ajibade et al. (2019) examined Kenyan and Nigerian manufacturing companies and concluded that dividend policy affects profitability. Research Nurlela et al. (2019) showed that dividend policy affects the profitability of the selected banking companies in Nigeria.

Some studies analyzing the profitability of manufacturing companies in Indonesia also found various results. Chandra et al. (2019), stated that investment decisions do not affect profitability in manufacturing companies in Indonesia. Niar (2019), who examined 49 companies in Indonesia, found that capital structure does not affect profitability, while investment decisions affect the company's profitability.

Based on the research mentioned above results, it can be concluded that there has a diversity of research results on factors affecting companies' profitability. The diversity of previous study results is determined by significant value and even correlation between the coefficients. However, various previous studies that have been conducted in various countries have found evidence of inconsistent gaps. Therefore, this research has tried to add some

other variables, such as dividend policy, shares settled to workers, level of debt, and level of other investment decisions. The addition of some of these variables is expected to increase the benefits for investors, future researchers, and company management. Thus, the study was conducted to examine several factors that affect the profitability of manufacturing companies in Indonesia

**METHOD**

This study uses data on the financial statements of manufacturing companies that carried out a stock giving program to employees (ESOP) and owned a positive profit for the period 2013 - 2017.

Based on Table 1, it is known that manufacturing companies conducting ESOP are 25 and those who have a negative profit during the study period

**Table 1. Sampling Techniques**

No	Explanation	Total
1	Manufacturing companies conducting ESOP	25
2	No financial report for 2013-2017 period	(0)
3	Having negative profit during the period of research	(5)
Total of sample		20
Period (2013-2017)		5
Total of Observation		100

Source: www.idx.co.id

**Table 2. Some variables of research used**

Variables	Formulas	Scale	RelationShip	Symbol
Return on Asset	Earning after Tax: Total asset	Ratio	n.a	ROA
Dividend Policy	Total dividen: Earning after Tax	Ratio	+	DPR
Employee Stock Ownership Program	Number of stock options granted: all possessed shares	Ratio	+	ESOP
Leverage	Total debt : total asset	Ratio	-	DER
Decision of Investment	Fixed asset : total asset	Ratio	+	DI

are 5. Therefore, the samples are 20 for five years, so that the number of observations is 100.

The research method used in this study is the panel regression method in which it empirically can be written with the following model:

$$ROA_{it} = \beta_0 + \beta_1DPR_{it} + \beta_2ESOP_{it} + \beta_3DER_{it} + \beta_4DI_{it} + \varepsilon_{it}$$

aming the best model among the common effect model, fixed-effect model, and random effect model. Choosing the selected model or best model is done

This study uses panel data which is a combination of time series and cross-section data. Meanwhile, the data analysis used is a panel regression method. The use of panel regression requires ex-

by the Chow test and Hausman test. Chow test is carried out for the selection of common effect model or fixed-effect model. If the cross-section value of

chi-square is significant at the level of 5%, so the best model is the fixed effect model.

Conversely, if the value is not significant at the level of 5%, the best model is the common effect model, and there is no need for further Hausman test. Moreover, the Hausman test is conducted in the best model of Chow test result is the fixed-effect model. If the results of the Hausman test have a significant chi-square value at the level of 5%, the best model is the fixed effect model. Otherwise, if the value is not significant at the level of 5%, then the best model is the random effect model.

### RESULTS

The variables used in this study are dividend payout ratio, stock giving program to employees, debt-equity ratio, investment decisions (DPR, ESOP, DER, DI), and return on assets (ROA). The numbers of samples are 20 companies with a five-year observation period so that there are 100 observational data. The descriptive statistical results are as follows:

Table 3 shows that data in the study are still different since there is a greater average value than the standard deviation, especially the ESOP variable. The average value of ROA is 7.02%, with a standard deviation value of 6.36%. The highest value of ROA is 28.72% and the lowest value is 0.13%. The average value of DPR is 0.24%, with a standard deviation value of 0.22%. The highest value of DPR is 1.65% and the smallest value is -0.16%. The ESOP value is -2.81%, with a standard deviation value of 7.18%. The highest ESOP value is 10.48% and the lowest is -14.89%. The average DER's value is 0.16%, with a standard deviation value of 0.24%. The highest and lowest values are 1.32% and 0.00%, respectively. The average DI's value is 21.49%, with a standard deviation value of 8.88%, in which the biggest and smallest values are 54.73% and 0.17%, respectively.

### Correlation Analysis

Correlation analysis is a useful stage for analyzing the relationship between the independent vari-

Table 3. Descriptive Statistical Results

	ROA	DPR	ESOP	DER	DI
Mean	7.02	0.24	-2.81	0.16	21.49
Median	4.72	0.17	-2.04	0.06	21.72
Maximum	28.72	1.65	10.48	1.32	54.73
Minimum	0.13	-0.16	-14.89	0.00	0.17
Std. Dev.	6.36	0.22	7.18	0.24	8.88
Observations	100	100	100	100	100

ables and the dependent variable. The results of correlation analysis in this study can be seen in the Table 4.

Table 4 shows that each of the variables DPR, ESOP, DER, and DI is highly correlated with ROA at the significance level of 1%. In addition, the relationship between the independent variables used in this study does not occur multicollinearity problems. This can be seen from the correlation values, which are not more than 0.8.

### Panel Regression

This section explains the analysis of the panel regression results. In Table 5, the first column shows variables used, R<sup>2</sup>, F test results, DW value, and Chow test, and Hausman test. Columns of 2-3 show the results of common effect model regression and its t statistic values. Columns 4-5 show the results of fixed effect model regression and its t statistic values. Columns 6-7 show the results of regression value using the random effect model and its t statis-

**Table 4. Correlation Analysis**

**Correlation:**

t-Statistic Probability	ROA	DPR	ESOP	DER	KI
ROA	1.000				
DPR	0.403 4.369(***)	1.000			
ESOP	0.414 4.513(***)	0.089 0.893	1.000		
DER	0.397 4.283(***)	0.269 2.775(***)	-0.004 -0.045	1.000	
DI	0.353 3.738(***)	0.333 3.507(***)	0.268 2.756(***)	-0.070 -0.702	1.000

Description: \*\*\*, \*\*, \* indicate significant at the level of 1%, 5% and 10%

tic values, while column 8 shows the t table value. Based on the study results, the best model in this study is the fixed effect model. The determination of the fixed-effect model as the best model is based on the results of the Chow test and the Hausman test. Chow test results comparing the common effect model with the fixed-effect model show a value of cross-section chi-square of 19, which is significant at the level of 1% (0.000). Then the model

selected is the fixed effect model. Because the Chow test is chosen for the fixed effect model, it needs to carry out the Hausman test. Hausman test is performed to compare the fixed effect model with the random effect model. The results of the Hausman test show a value of cross-section chi-square of 4, which is significant at the level of 1% (0.017). So, the best model in this study is the fixed effect model.

**Tabel 5. Panel Regression Model**

Var	Common Effect Model		Fixed Effect Model		Random Effect Model		t-table
	Coeff.	t-Stat.	Coeff.	t-Stat.	Coeff.	t-Stat.	
1	2	3	4	5	6	7	8
C	1.595	1.107	5.858	3.588	3.919	2.650	1.661
DPR	5.630	2.378**	6.759	2.790***	6.046	2.850***	
ESOP	0.300	4.267***	0.500	1.973*	0.356	3.861***	
DER	9.525	4.448***	11.878	3.404***	10.053	4.230***	
DI	0.157	2.579**	-0.044	-0.658	0.048	0.821	
R <sup>2</sup>	0.443	0.713	0.335	F-table2.467			
F-stat.	18.896***		8.245***		12.017***		
DW	1.383		2.076		1.255		
			Df		Prob.		
	Redundant Fixed Effects Tests-Chow test		19		0.000		
	Correlated Random Effects- Hausman test		4		0.017		

Description: \*\*\*, \*\*, \* indicate significant at the level of 1%, 5% and 10%

Furthermore, the results of the research using the panel regression equation can be seen in Table 5 below. Then the equation model is arranged as follows:  $ROA = 5,858 + 6,759 DPR + 0.500 ESOP + 11,878 DER - 0.044 DI$ .

Based on the equation above, it can be explained that:

1. The constant is 5.858, meaning that if the values of all independent variables of DPR, ESOP, DER, and DI are 0, the value of return on asset remains at 5.858.
2. The DPR coefficient is 6.759 by t-value > the critical value ( $2.790 > 1.661$ ) or p-value < the significance level ( $0,000 < 0.01$ ), meaning that an increase in DPR by 1% causes an increase in return on assets by 6.759%.
3. The ESOP coefficient is 0.500 by t-value > the critical value ( $1.973 > 1.661$ ) or p-value < the significance level ( $0.052 < 0.10$ ), meaning that an increase in ESOP by 1% causes an increase in return on assets by 0.500%.
4. The DER coefficient is 11.878 by t-value > the critical value ( $3.404 > 1.661$ ) or p-value < the significance level ( $0.001 < 0.01$ ), meaning that an increase in DER by 1% causes an increase in return on assets by 11.878%.
5. The DI coefficient is -0.044 by t-value < the critical value ( $0.658 < 1.661$ ) or p-value > the significance level ( $0.821 > 0.05$ ), meaning that an increase in DI by 1% causes a decrease in return on assets by 0.044%.
6. F value of 8.245 is greater than the F table value of 2.467 at the level of significance of 1%. The results of the F test show that DPR, ESOP, DER, and DI significantly influence return on assets in manufacturing companies in Indonesia.
7. R-squared value is 0.714 or 71.4%. This finding depicts that DPR, ESOP, DER, and DI can explain their effect on return on assets by 71.4%, and the remaining 28.6% is explained by other factors that are not analyzed in this study.

## DISCUSSION

### Effect of Dividend Policy on the Financial Performance

This study finds that dividend policy has a significant positive effect on the financial performance of manufacturing companies in IDX. This finding indicates that giving dividends to investors is a positive signal for investors since they have invested in the right companies because companies that provide dividends are considered companies with a good profit level.

The results of this study are consistent with the studies of Rajverma (2019) focusing on companies on the Indian Stock Exchange; Ajibade et al. (2019) focused on manufacturing companies in Nigeria and Kenya, and Nurlela et al. (2019) focused on the Islamic Stock Index in IDX that revealed that dividend policy affects the company's profitability. This finding indicates that companies distributing dividends are used as signals by potential investors. The signal is related to company management that can predict the company's revenues and prospects. Otherwise, a dividend decline is believed by investors as a signal that the company will face a difficult period in the future.

### The effect of the Employee Stock Ownership Program on The Financial Performance

This study finds that ESOP has a significant positive effect on the financial performance of manufacturing companies in IDX. This finding shows that companies that carry out ESOP programs to their employees or workers in a certain quantity will motivate them to advance the company. This attitude contributes to the quality of work, so that company's profitability increases too. This finding is consistent with the Richter and Schrader (2017) research focus in the five largest European countries study that showed that giving shares or ownership to employees affects the company's profitability. However, the granting of ownership must be proportional and rational. Giving several shares af-

fect the company's sense of belonging and working enthusiasm for employees and ultimately increases the company's profitability. However, this research is not in line with Kim and Patel (2017) focusing on companies operating in Europe, which showed that giving several shares does not affect the company's profitability.

### **Effect of Debt to Equity Ratio on the Financial Performance**

This study finds that the debt to equity ratio has a significant positive effect on the financial performance of manufacturing companies in IDX. This finding indicates that companies with optimal debt levels and can pay it off grow up better. In other words, companies prefer the use of external funds to finance their investments to make better company profits. That is consistent with the trade-off theory, which states that companies should use debt to improve the company's financial performance.

The results of this study are in accordance with Dalci's (2018) study of the focus of previous manufacturing companies in China; Dimitriæ et al. (2019) focused on hotel companies in several Mediterranean countries; Das and Swain (2018) focus on 50 manufacturing companies in India; Nhung and Okuda (2015) focus on companies on the Exchange in Vietnam and Vätavu (2015) focus on companies on the Romanian Stock Exchange. Their research documents that debt affects company performance. The results showed that creditors consider companies that can meet their debt obligations as bona fide companies. This condition makes it easy for companies to get other loans from outside parties. However, this study is not in accordance with Niar's (2019) research on manufacturing companies in Indonesia and Chadha and Sharma (2015), the focus of manufacturing companies in India, which shows no relationship between capital structure and profitability.

### **Effect of Investment Decisions on the Financial Performance**

This study found that investment decisions do not affect the financial performance of manufacturing companies on the IDX. That provides direc-

tion for investment decisions that the company makes does not provide benefits in the short term. The findings of this study are in line with research by Niar (2019), which states that investment decisions do not influence profitability in manufacturing companies in Indonesia. And in line with the research by Chandra et al. (2019) on company data on Kompas 100, they conclude that investment decisions do not affect company profitability. These findings indicate that the return on investment obtained by investors is not in the short term but the long term and is full of high levels of uncertainty.

### **CONCLUSIONS**

This study finds that dividend policy, a stock giving program to employees, and debt policy affect the profitability of manufacturing companies in IDX, while investment decisions do not. These findings indicate that companies need to consider dividend policy, giving shares to employees, and debt policy in increasing the company's profitability. Particularly, for the receivables policy, it is expected that the company's management will manage debt or external funds optimally so that it will have a positive impact on the company's profit.

### **IMPLICATIONS**

The practical implications of this research are expected to provide input to investors, academics, and company management or stakeholders in manufacturing companies, especially those that provide ESOP. By considering research variables, it is expected to increase the company's profitability. Meanwhile, the theoretical implications of this research can provide other ideas and concepts in testing the research model, especially for companies that use ESOP.

### **LIMITATIONS**

The model has limitations in the study empirically because the data sample used is very limited compared to other articles. Furthermore, this study is not obtained so many companies that distribute the ESOP and the company does not distribute its ESOP. So, this study does not test with a modera-

tion approach for companies that use (not) ESOP. Thus, future research can be continued using a moderation model approach and multiplying research samples, including economic variables.

## RECOMMENDATIONS

This study provides recommendations for further research by conducting tests on other industrial sectors, such as the Jakarta Islamic Index 70. In addition to adding macroeconomic variables such as inflation, exchange rates.

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