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# HAD AN EFFECT OF DEBT EQUITY RATIO, RETURN ON ASSETS, FIRM SIZE, EARNINGS PER SHARE, CASH POSITION AND TOTAL ASSET TURNOVER ON DIVIDEND PAYOUT RATIO IN MANUFACTURING COMPANIES

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**Abstract.** The purpose of this study is to examine the effect of DER, ROA, Firm Size, EPS, Cash Position and Total Asset Turnover using the t test and F test. This research uses descriptive quantitative. The number of manufacturing companies used as a population is 169 companies selected based on purposive sampling obtained a sample of 54 companies. The data analysis technique used is multiple linear regression analysis. The results of data analysis show that partially only DER has a significant negative impact on DPR. Simultaneously, six independent variables have a significant impact on DPR. The coefficient of determination test results show the Adjusted R Square number 0.108, which means that 10.8% of the variation of DPR of manufacturing companies can be explained by the independent variables used, the remaining 89.2% is caused by other factors such as Growth Opportunity, Ownership, Current Ratio and others.

**Keywords**: DER; ROA; Firm Size; EPS; Cash Position; TATO; DPR

## I. INTRODUCTION

Manufacturing companies are divided into several types of companies engaged in various fields such as basic and chemical industries, various industries and various consumer products. Investors are more interested in the stocks of manufacturing companies because of their large production scale and large market share. In Indonesia there are a lot of manufacturing companies, 169 companies are listed on the Indonesia Stock Exchange. The issue of dividend distribution is worth studying, because on the one hand the company hopes to continue to grow to maintain the company's survival, on the other hand dividends are very important to meet shareholders' expectations of return on investment. The greater the cash dividends paid by the company, the greater the external capital required to borrow through debt or sell shares. There are several factors that affect the dividend payout ratio such as Debt to Equity Ratio, Return on Asset, Firm Size, Earning Per Share, Cash Position and Total Asset Turnover. The DER ratio shows the level of loan usage by a company in terms of its capital position. The higher the use of debt, the smaller the owner's capital, in general, investors tend to be careful in choosing clients whose DER ratio is high because the use of a lot of debt has a high risk on the funds invested by investors which will have an impact on dividend distribution. In other words, companies with large debts tend to minimize the dividend allotment of shareholders for the purpose of paying their debts.

ROA ratio is one of the profit ratios. Earning profit is very important because the company will distribute dividends if the company earns a profit. However, it can be seen in the manufacturing industry that there are quite a lot of companies that experience losses around 51 companies, causing the company to not be able to pay dividends to shareholders. Total Asset Turnover is considered as cash issued so that if the company does not have a good cash position, it can interfere with its dividend distribution. Total Asset Turnover is analyzed in order to measure the company's ability to generate sales from the use of existing assets. As is known, the manufacturing industry has considerable assets to support its production activities so that by analyzing its asset turnover investors can determine the effectiveness of management in increasing its sales. If sales increase, it will certainly have an impact on profit and dividends distributed will also be stable. Some research gaps that exist so far, namely in **[1]** partially only ROA has an influence on the Dividend Payout Ratio, besides that the other three independent variables Current Ratio, DER & Total Asset Turnover have no implications for the dividend payout ratio. Another study by **[2]** partially Cash Position and ROA have significant positive implications while DER has no implications for DPR.

The following previous research has been conducted previously to help understand its effect on the Devidend Payout Ratio. Researchers **[3]** in their research entitled Current Ratio, ROE, Total Assets Turn Over, Debt to Equity Ratio, and Price Earning Ratio on Devidend Payout Ratio in companies listed on the IDX in the period 2009 - 2011 show that DER is significant on the Devidend Payout Ratio. Researchers **[4] [5] [6] [7]** also think so.

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## II. RESEARCH METHODS

*Relationship between DER, ROA, Firm Size and DPR*

This ratio is used to measure the extent to which the company funds through debt, the greater the debt, the greater the net profit that can be obtained by shareholders, including dividends received. The debt / equity ratio has a high value, which is enough to indicate that the company is not good enough to pay off debt for a long time, so that it will have an impact on investors' investment prospects. **[8]** Return on assets measures the company's ability to generate net income based on a certain level of assets. The higher the rate of return on the company's assets, the higher the level of profit the company can achieve, so that it will attract investors to invest in the company. Investors need to pay attention to the rate of return on assets when investing in stocks, because the rate of return on assets is an indicator of the efficiency of using the company's assets to generate profits **[9] [10] [11] [12]** revealed that the ROA variable has a positive effect on DPR. Firm Size describes the size of a company from the perspective of the company's total assets at the end of the year. Large and mature companies will easily enter the capital market. This ease means sufficient flexibility and the ability to obtain greater capital, thus allowing the company to have a higher dividend payout rate than small companies. Therefore, the larger the company, the greater the dividend distribution [13]. Effect of Earnings Per Share on Dividend Payout Ratio

*Relationship between TATO and DPR*

**[14]** argues that if the company's assets are allocated in the form of cash, then the stock price reflects the level of asset turnover managed by management, if the stock price rises, it usually indicates that management can manage these assets well. However, if the stock price is stagnant or falling, it means that management cannot manage these assets well, which can result in losses. Therefore, the higher the TATO, the higher the DPR allocation for shareholders. On the other hand, the lower the TATO, the lower the DPR allocation to shareholders. The description of the hypothesis in research can be described as follows:

H1 : DER has implications for the DPR of manufacturing for the period 2016–2019.
H2 : ROA affects the DPR of manufacturing for the period 2016–2019
H3 : Company size affects the DPR of manufacturing in the period 2016–2019
H4 : EPS has an effect on the DPR of manufacturing for the period 2016–2019.
H5 : Cash position has an effect on DPR manufacturing during the period 2016–2019.
H6 : TATO has an effect on the DPR of the manufacturing period 2016-2019.
H7 : DER, Return on Asset, Company Size, Earnings Per Share, Cash Position, and Total Asset Turnover have an effect on the DPR of manufacturing in the 2016-2019 period.

In support of the description of the research hypothesis, the conceptual diagram representation can be seen in Figure 1.

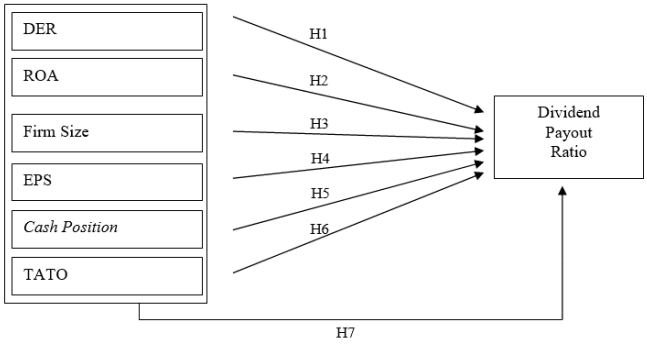


Figure 1. Conceptual Chart

## III. RESULTS AND DISCUSSION

### *A. Descriptive Statistics*

*N* in table 1 shows the number of amples in this study, namely 216 data from 54 sample companies multiplied by 4 years of the research period (2016-2019).

Table 1. Statistic Descriptif

**Descriptive Statistics**

| | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| DER | 216 | ,083 | 2,909 | ,78484 | ,593004 |
| ROA | 216 | ,001 | ,527 | ,09540 | ,087108 |
| FirmSize | 216 | 24,077 | 33,495 | 29,03253 | 1,823142 |
| EPS | 216 | ,018 | 5654,993 | 321,70994 | 647,426589 |
| CashPosition | 216 | -126576603862 | 240748000000000 | 4194250161224 | 18992281988859 |
| TATO | 216 | ,307 | 2,392 | 1,01146 | ,434870 |
| DPR | 216 | ,002 | 10,843 | ,51391 | ,888085 |
| Valid N (listwise) | 216 | | | | |

The minimum DER was 0.083 at PT Sidomuncul, Tbk in 2016 and the maximum was 2.909, namely PT Unilever Indonesia, Tbk in 2019. The average DER for 4 years was 0.78484. The minimum ROA is 0.001, namely PT Lion Metal Works, Tbk in 2019 and a maximum of 0.527 obtained by PT Multi Bintang Indonesia, Tbk in 2017. The average ROA for 4 years was 0.09540. The minimum Firm Size is 24.077, namely PT Chandra Asri Petrochemical, Tbk in 2016 and the maximum is 33.495 obtained by PT Astra International, Tbk in 2019. The average Firm Size for 4 years was 29.03253. The minimum EPS is 0.018, namely PT Chandra Asri Petrochemical, Tbk in 2019 and the maximum is 5654.993, namely PT Gudang Garam, Tbk in 2019. The average EPS for 4 years was 321.70994. Cash Position has a min value of -Rp 126,576,603,862, - namely at PT Sekar Laut, Tbk in 2018 with a max of Rp 240,748,000,000,000, - at PT Selamat Sempurna, Tbk in 2019 and an average over 4 years of Rp 4,194,250,161,224. The minimum Total Asset Turnover value of 0.307 fell on PT Semen Baturaja Persero, Tbk in

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2017, the maximum of 2.392 fell on PT Unilever Indonesia, Tbk in 2016 and the average over 4 years was 1.01146. Dividend Payout Ratio minimum value of 0.002 falls on PT Unggul Indah Cahaya, Tbk in 2016, the maximum of 10.843 falls on PT Merck, Tbk in 2018 and the average for 4 years is 0.51391.

## *B. Classical Assumption Test*

The research data experienced problems in the normality test so that the transformation technique that met the classical assumption requirements was to remove outlier data > 2.5 as much as 28 data and then transformed with the SQRT technique. The results of the normality test processing can be seen in Figure 2.

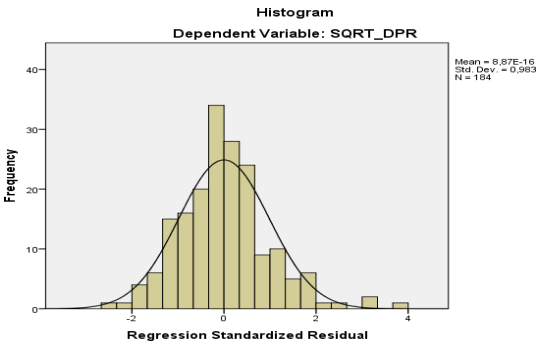


Figure 2. Histogram Normality Test

From the histogram graph, it shows that after the data transformation, it has a normal distribution because the visual graph has a symmetrical shape. Apart from the histogram, the normality assumption is also seen from the P-Plot graph.

Y = a + b1X1 + DPR = 0,468 - 0,345 DER - 0,247 ROA + 0,089 FirmSize – 0,001 EPS + 0,00000003 CashPosition– 0,047 TATO

The multiple regression equation can be explained as follows:

1. Constant (a) 0.468 means that if the independent variable is constant or worth 0, the Dividend Payout Ratio will be worth 0.468.
2. b1X1 -0.346 means that every increase in DER by 1 unit of Dividend Payout Ratio variable decreases by 0.346.
3. b2X2 of -0.247 means that every increase in ROA by 1 unit of Dividend Payout Ratio variable decreases by 0.247
4. b3X3 of 0.089 means that every increase in Firm Size by 1 unit of the variable Dividend Payout Ratio increases by 0.089
5. b4X4 of -0.001 means that each increase in EPS by 1 unit of the Dividend Payout Ratio variable decreases by -0.001.
6. b4X5 of 0.00000003 means that every increase in Cash Position by 1 unit of Dividend Payout Ratio variable increases by 0.00000003.
7. b6X6 of -0.047 means that every increase in Total Asset Turnover by 1 unit of variable dividend Payout Ratio decreases by 0.047

## *C. Testing of hypotheses*

Testing the coefficient of determination test can be seen in Table 2.

Table 2. Coefficient Of Determination Test

**Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | ,370[a] | ,137 | ,108 | ,23399 |

a. Predictors: (Constant), SQRT_TATO, SQRT_FirmSize, SQRT_DER, SQRT_EPS, SQRT_ROA, SQRT_CashPosition

The magnitude of the influence of the independent variable on the dependent variable is seen from the Adjusted R Square number which shows 0.108 which means that 10.8% of the variation in Dividend Payout Ratio can be explained by DER, ROA, Firm Size, EPS, Cash Position and Total Asset Turnover where the remaining 89.2% is influenced by other factors, namely Growth Opportunity, Ownership, Current Ratio and others. Meanwhile, the F test can be seen in Table 3.

Table 3. F test

**ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 1,541 | 6 | ,257 | 4,692 | ,000[b] |
| | Residual | 9,691 | 177 | ,055 | | |
| | Total | 11,233 | 183 | | | |

a. Dependent Variable: SQRT_DPR

b. Predictors: (Constant), SQRT_TATO, SQRT_FirmSize, SQRT_DER, SQRT_EPS, SQRT_ROA, SQRT_CashPosition

The F table value (df 1 = 6 and df 2 = 177) is 2.15. By looking at the simultaneous test results, the calculated F value (4,692)> F table 2.15 and the significant value is 0.000 <0.05, so Ha is accepted, which means that DER, ROA, Firm Size, EPS, Cash Position and TATO simultaneously have a significant effect on manufacturing DPR in 2016-2019.

Table 3. T Test\

**Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | ,468 | ,982 | | ,477 | ,634 |
| | SQRT_DER | -,345 | ,070 | -,396 | -4,923 | ,000 |
| | SQRT_ROA | -,247 | ,243 | -,089 | -1,018 | ,310 |
| | SQRT_FirmSize | ,089 | ,191 | ,061 | ,466 | ,642 |
| | SQRT_EPS | -,001 | ,002 | -,027 | -,312 | ,755 |
| | SQRT_CashPosition | ,00000003 | ,000 | ,111 | ,895 | ,372 |
| | SQRT_TATO | -,047 | ,103 | -,036 | -,459 | ,647 |

a. Dependent Variable: SQRT_DPR

*t* table for alpha 0.05 (two tailed), df 177 is 1.97346. By comparing the partial test results with the magnitude of the t table, :

1. In the DER variable, the value of -count < -table or -4.923 < -1.97346 and its significance is 0.000 < 0.05, it means that Ha is accepted, meaning that there is a significant

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negative effect of DER on the manufacturing DPR in 2016-2019.
2. In the ROA variable, the value of -count> -table or -1.018> -1.97346 and the significant value is 0.310> 0.05, so Ho is accepted, meaning that there is no effect of ROA on manufacturing DPR in 2016-2019.
3. In the Firm Size variable, the value of tcount < ttable or 0.466 < 1.97346 and a significant value of 0.642 > 0.05, so Ho is accepted, meaning that there is no effect of Firm Size on manufacturing DPR in 2016-2019.
4. In the EPS variable, the value of -count> -tabel or -0.312> -1.97346 and a significant 0.755 > 0.05, so Ho is accepted, meaning that there is no effect of Firm Size on manufacturing DPR in 2016-2019. > 0.05, then Ho is accepted, meaning that there is no effect of EPS on manufacturing DPR in 2016-2019.
5. In the Cash Position variable, the value of tcount < ttable or 0.895 < 1.97346 and its significance is 0.372 > 0.05, so Ho is accepted, meaning that there is no effect of Cash Position on manufacturing DPR in 2016-2019.
6. The Total Asset Turnover variable is the value of -count> -tabel or -0.459> -1.97346 and its significance is 0.647> 0.05, so Ho is accepted, meaning that there is no effect of Total Asset Turnover on manufacturing DPR in 2016-2019.

*Discussion DER,ROA, Firm Size terhadap DPR*

The results of the study prove that DER can affect the DPR of manufacturing companies. Likewise, the research results obtained by [15], namely DER has a significant negative effect on the Dividend Payout Ratio. If a company has a high debt ratio, it generally prioritizes debt payments over dividend distribution to its shareholders, so that if the higher the level of loans owned by a company, it reduces its dividend distribution. The results of the study cannot prove the effect of ROA on the manufacturing dividend distribution ratio. Likewise with the research results obtained by [16], namely ROA does not affect DPR. Based on existing theory, dividends are distributed if the company earns a profit, but uncertain sales conditions make the company have to withhold its dividend distribution so that many companies earn profits but are reluctant to distribute dividends to their shareholders. The results of the study cannot prove the effect of company size on the manufacturing dividend distribution ratio. Likewise with the results of research obtained by [16] company size does not affect the dividend payout ratio. Based on the results of this study, the size of the company does not affect its dividend distribution, because dividends are profit sharing that is awaited by shareholders and the company should distribute dividends if it earns profits so that both the amount of dividend distribution in small companies and large companies has no effect as long as the company is able to earn profits and maintain a balance of cash flow.

The results of data processing cannot prove the effect of EPS on the dividend distribution ratio of manufacturing companies. Likewise, the research results obtained by [17], namely EPS does not significantly affect DPR. The results of this study indicate that EPS does not affect the distribution of dividends, because the unstable net profit of the company results in the company having to postpone its dividend distribution so that sometimes even though the company does not pay dividends. dividend distribution so that sometimes even though the company earns profits the company will not announce dividend distribution.

## IV. CONCLUSION

After analyzing the data, some conclusions from the researchers related to the results of this study are DER can affect the DPR policy of manufacturing companies for 2016-2019. ROA cannot affect the DPR policy of manufacturing companies for 2016-2019 Firm Size cannot affect the DPR policy of manufacturing companies for 2016-2019. EPS cannot affect the DPR policy of manufacturing companies for 2016-2019. Cash Position cannot affect the DPR policy of manufacturing companies for 2016-2019. Total Asset Turnover cannot affect the DPR policy of manufacturing companies for 2016-2019. Simultaneously DER, ROA, Firm Size, EPS, Cash Position and Total Asset Turnover affect the DPR policy of manufacturing companies for 2016-2019. The magnitude of the influence of variations in the dependent variable that can be explained by the six independent variables can be seen from the adjusted R Square value of 10.8% where the remaining 89.2% is influenced by other variables.

## REFERENCES

[1] V. Angeline, "Analisis Pengaruh Return On Asset, Current Ratio, Debt To Equity, Dan Total Asset Turnover Terhadap Kebijakkan Dividen Pada Perusahaan Food And Beverages Yang Terdaftar Di Bei Pada Periode 2015–2017," *Literasi J. Ekon. DAN BISNIS*, vol. 1, no. 1, pp. 53–67, 2019.

[2] Y. Safrianto, "Pengaruh Desentralisasi Fiskal Terhadap Pertumbuhan Ekonomi Di Provinsi Aceh," *J. Ilmu Ekon. Progr. Pascasarj. Unsyiah*, vol. 3, no. 2, pp. 60–67, 2017.

[3] S. Rahayuningtyas, "Pengaruh Rasio-Rasio Keuangan Terhadap Dividend Payout Ratio (DPR)(Studi Pada Perusahaan Yang Listing Di BEI Tahun 2009–2011)." Brawijaya University, 2014.

[4] H. Abdullah, Soedjatmiko, Hartati, and Antung, "Pengaruh EPS, DER, PER, ROA, ROE Terhadap Harga Saham Pada Perusahaan Tambang Yang Terdaftar Di BEI Untuk Periode 2011-2013," 2016.

[5] A. Alipudin, "Pengaruh eps, roe, roa dan der terhadap harga saham pada perusahaan sub sektor semen yang terdaftar di bei," *JIAFE (Jurnal Ilm. Akunt. Fak. Ekon.*, vol. 2, no. 1, pp. 1–22, 2016.

[6] Y. Atmoko, F. Defung, and I. Tricahyadinata, "Pengaruh return on assets, debt to equity ratio, dan firm size terhadap dividend payout ratio. Kinerja, 14 (2), 103." 2018.

[7] A. S. Pribadi and R. D. Sampurno, "Analisis pengaruh cash position, firm size, growth opportunity,

*Volume 07, Number 01, March 2023, Page 239-243*
*e-ISSN: 2598-120X; p-ISSN: 2598-117X*

ownership, dan return on asset terhadap dividend payout ratio," *Diponegoro J. Manag.*, vol. 1, no. 4, pp. 201–211, 2012.

[8] A. Erari, "Analisis pengaruh current ratio, debt to equity ratio, dan return on asset terhadap return saham pada perusahaan pertambangan di bursa efek Indonesia," *J. Manaj. Bisnis*, vol. 5, no. 2, pp. 174–191, 2014.

[9] A. N. Chasanah, "Pengaruh rasio likuiditas, profitabilitas, struktur modal dan ukuran perusahaan terhadap nilai perusahaan pada perusahaan manufaktur yang terdaftar di bei tahun 2015-2017," *J. Penelit. Ekon. dan Bisnis*, vol. 3, no. 1, pp. 39–47, 2018.

[10] I. K. S. Kartika and I. M. Dana, "Analisis pengaruh profitabilitas, likuiditas, ukuran perusahaan, dan tingkat pertumbuhan terhadap struktur modal perusahaan food and beverages yang terdaftar di bursa efek indonesia." Udayana University, 2015.

[11] J. B. Janifairus, R. Hidayat, and A. Husaini, "Pengaruh return on asset, debt to equity ratio, assets growth, dan cash ratio terhadap dividend payout ratio," *J. Adm. Bisnis (JAB)| Vol*, vol. 1, no. 1, 2013.

[12] L. Marlina and C. Danica, "Analisis pengaruh cash position, debt to equity ratio, dan Return on assets terhadap dividend payout ratio," *J. Manaj. Bisnis*, vol. 2, no. 1, pp. 1–6, 2009.

[13] D. N. Putri and S. Suwitho, "Pengaruh Earning Per Share Terhadap Dividend Per Share Dan Harga Saham," *J. Ilmu dan Ris. Manaj.*, vol. 6, no. 6, 2017.

[14] R. O. Angelina, "Pengaruh Pajak, Aset Tidak Berwujud, dan Tunneling Incentive Terhadap Indikasi melakukan Transfer Pricing pada Perusahaan Manufaktur yang terdaftar di BEI pada tahun 2015-2017/Riska Oktaviani Angelina/32150051/Pembimbing: Amelia Sandra," 2019.

[15] A. Akmal, Z. Zainudin, and R. Yulianti, "Pengaruh return on asset, sales growth, firm size dan debt to equity ratio terhadap pembayaran dividen pada perusahaan manufaktur sub sektor perusahaan makanan dan minuman yang terdaftar di Bursa Efek Indonesia Periode 2010-2014," *JEMSI (Jurnal Ekon. Manajemen, dan Akuntansi)*, vol. 2, no. 2, pp. 24–36, 2016.

[16] M. W. Swastyastu, G. A. Yuniarta, S. E. AK, A. T. Atmadja, and A. SE, "Analisis faktor-faktor yang mempengaruhi kebijakan dividend payout ratio yang terdaftar di Bursa Efek Indonesia (BEI)," *JIMAT (Jurnal Ilm. Mhs. Akuntansi) Undiksha*, vol. 2, no. 1, 2014.

[17] J. D. C. Sarmento and M. Dana, "Pengaruh return on equity, current ratio, dan earning per share terhadap kebijakan dividen pada perusahaan keuangan." Udayana University, 2016.