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Analysis of the effect of return on equity (roe) and company size on dividend per share (dps) in state-owned banks for the 2017-2021 period

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ABSTRACT

This study aims to find out how much influence Return On Equity (ROE) and Company Size have on Dividend Per Share (DPS) in BUMN-Owned Banking for the 2017-2021 period, both partially and simultaneously. The method used in this research is quantitative data. The sample used is financial reports from 2017-2021. While the analysis technique used is descriptive analysis, classical assumption test, multiple regression analysis, regression coefficient and coefficient of determination. Based on the results of research on Bank Mandiri, BNI and BRI, the results of the F Test were 8,985 > 3.58 with a significance value of 0.004 <0.05, thus simultaneously Return On Equity (ROE) and Company Size had a significant and significant effect on Dividend Per Share with a percentage relationship by 82.5%. Based on the results of the partial T-test Return On Equity (ROE) on Dividend Per Share, it was obtained a value of 2,079 <2.201 with a significant value of 0.060 > 0.05 from these results it can be concluded that there is no significant effect Return On Equity (ROE) on Dividend Per Share with percentage of 59.2%. The results of the partial T-test on Company Size on Dividend Per Share obtained a value of 3,673> 2.201 with a significant value of 0.003 <0.05. From these results it can be concluded that there is a significant effect of Company Size on Dividend Per Share with a percentage of 72.7%.

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1. INTRODUCTION

The capital market in a country's economy plays an important role as a means of income for companies obtained from shareholders for business development, additional working capital, expansion and others. In addition, the capital market also acts as an investment vehicle for the community, so that the community can place their funds into capital market instruments. The capital market can be interpreted as a market that has various instruments in it that are traded such as: bonds; share; mutual funds; derivative instruments; and other long-term instruments (Indonesia Stock Exchange, 2018).

At this time the banking industry is one of the indices that are of interest to the capital market, because most of them are included in the favorite indexes in the capital market index list. Banks are intermediary institutions whose activities collect and distribute funds to the public, and banks also provide other financial services. All activities carried out by banks are inseparable from obtaining profits or profits (profit). The company's ability to generate profits in general is called Profitability. Profitability in the context of ratio analysis, measures income based on the income statement and

book value of investments. The higher the level of profitability, the company will be able to fulfill its capital structure with its own capital. Thus, the company can reduce the amount of capital that comes from debt.

BUMN (State Owned Enterprises), is one of the important economic activities in the national economy. In simple terms, BUMN is a business entity whose capital is wholly or mostly owned by the state. SOEs in the form of PTs and owning at least 51% of shares. Banking companies owned by SOEs, according to the official SOE website regarding financial services, state-owned banks have four banks, namely Bank Mandiri, Bank Negara Indonesia (BNI), Bank Rakyat Indonesia (BRI).) and the State Savings Bank (BTN).

Bank Mandiri is a bank that was established on October 2, 1998 which has a performance that is constantly experiencing continuous improvement. This can be seen from the profit which increased to IDR 5.3 trillion in 2004. And in 2021, bank Mandiri will be able to compete and be able to answer the needs of its customers, this is reflected in the enthusiasm of its customers. This can be seen from the financial reports in Dividend Per Share (DPS), where Bank Mandiri is still paying dividends from 2017-2021. Even though every year there are fluctuations in the value of Return On Equity (ROE) and Company Size. Return On Equity (ROE) in 2019 has decreased significantly but in 2021 it has increased again. Then on Company Size every year Bank Mandiri has increased.

Bank Negara Indonesia (BNI), is a government-owned bank that is a member of BUMN. Judging from the Return On Equity (ROE) value, the biggest decline occurred in 2020, but in 2021 it experienced another increase. Meanwhile, Bank BNI's company size continues to increase every year. Regarding Dividend Per Share (DPS), judging from its financial reports, Bank BNI is still contributing to the payment of dividends paid annually, this has become one of the references for investors to carry out their investment activities at the bank.

Bank Rakyat Indonesia (BRI), is one of the largest and oldest state-owned banks which was established on December 16, 1895. Although every year it experiences fluctuations in the value of Return On Equity (ROE) and Company Size. Return On Equity (ROE) in 2017-2019 has increased, then in 2020 it began to decrease, until 2021 it has increased again. In Company Size, Bank BRI has increased every year.

State Savings Bank (BTN) was established in 1897 by the Indonesian Government. In the last 5 years, the growth of the Company's assets has reached an average of 9.22% per year driven by growth in credit/financing and investment. Even though it has increased in other respects, it is undeniable that Bank BTN in 2021 has not been able to meet the needs for paying dividends which should be made every year, because the profits generated do not meet the requirements, seen from BTN's financial reports, in 2020-2021 in Dividend Per Share (DPS), Bank BTN cannot make payments and the resulting dividends will be used as a reserve fund or become retained earnings by the company. With Return On Equity (ROE) and Company Size. In Return On Equity (ROE), 2017-2021 has experienced increases and decreases.

Management and share capital investors (Investors), often have different interests. Management tends to prioritize personal interests, namely profits to increase company profits, and not to investors. Investors assume that management's personal interests limit the profits that can be obtained by the company. This difference in interests often creates a conflict known as agency conflict. Agency conflict (Agency Conflict) is a contract entered into between the two parties (management and investors) in granting power to management to make decisions. In this way, agency conflicts can be reduced. One of the mechanisms for reducing agency conflict is the Dividend Per Share (DPS) mechanism. By looking at whether the results of the Dividend Per Share (DPS) in the company are high or low. Because, investors prefer stable dividends because it will involve investor confidence in the company.

Dividend Per Share (DPS) is a decision to distribute company profits to investors in the form of dividends. Otherwise, profits will be withheld due to the company's financing needs. Dividend Per Share (DPS), can be influenced by several factors, including Liquidity, Profitability, Company Size, Cash Flow, Investment and Financing. Profitability is the assessment of a company in generating profits during a certain period at a certain level of sales, assets and share capital, by comparing one with another. This provides a measure of the level of management effectiveness of a company, to the size of the profit level which will affect the level of dividend payments that will be distributed to

investors. ROE (Retrun on Equity), a measuring tool that will be used in measuring profitability. This ratio shows the efficient use of own capital. The higher this ratio, the better. This means that the position of the owner of the company is getting stronger, and vice versa. Therefore, ROE is an appropriate indicator tool in measuring business success by enriching investors who invest in the company.

2. RESEARCH METHOD

The type of research that the authors use is research with a quantitative descriptive approach. where this study intends to describe an event that is the center of attention to be described as it is with quantitative/statistical data analysis with the aim of testing the established hypothesis (Sugiyono, 2017: 13).

Research Population Is a certain characteristic to determine a population to be able to draw conclusions. Therefore, the population that will be carried out by researchers in conducting their research is to use government-owned companies in the banking sector, namely Bank Mandiri, BNI and BRI for the 2017-2021 period.

The sampling procedure used in this study is non-probability. By selecting the sample, the researchers reduced the sample using a purposive sampling technique. Purposive sampling technique is a sampling technique with certain considerations. In order to get a representative sample according to the criteria specified in this study. The sampling criteria that will be taken by researchers is to use the complete financial statements of Bank Mandiri, BNI and BRI for the 2017-2021 period.

Table 1. Variable Operational Definition

No	Variable	Variable Operational Definitions	Indicator
1.	*Return on equity*(X1)	ROE is calculated by dividing comprehensive income by shareholder equity, then the results are presented in percentage form.	ROE: $\frac{\text{Laba bersih setelah pajak}}{\text{Total ekuitas}}$
2.	Company Size (X2)	argues that company size is a scale in which the size of the company can be classified as measured by total assets, number of sales, share value and so on.	Size : Ln (Total Assets)
3.	*Dividend Per Share (DPS)*(Y)	*Dividend Per Share (DPS)*is the decision whether the profit earned by the company, at the end of the year will be distributed to shareholders in the form of dividends or will be withheld to increase capital to finance investment in the future.	*Dividend Per Share (DPS)*: $\frac{\text{Dividen Kas}}{\text{Jumlah Saham}}$

The purpose of testing this classical assumption is to provide certainty that the regression equation found to have accuracy and unbiased and consistent estimates in this study only uses Normality, Multicollinearity, Autocorrelation and Heteroscedasticity tests.

3. RESULTS AND DISCUSSIONS

Research Results

The research data is from the analysis of Return On Equity (ROE) and Company Size for BUMN-owned Banking for the 2017-2021 period with a total of 15 samples, while the data is as follows:

Table 2 Results of Banking Data Owned by SOEs Through Financial Reports for the 2017-2021 Period.

Object of research	x and y variables	2021	2020	2019	2018	2017
Mandiri Bank	ROE (X1)	0.14	0.09	0.13	0.14	0.13
	SIZES (X2)	21.01	20.89	20.77	20.66	20.60
	DPS (Y)	1.44	0.88	1.41	0.96	0.80
bni	ROE (X1)	0.09	0.03	0.12	0.14	0.14
	SIZES (X2)	20.55	20.43	20.35	20.32	20.19
	DPS (Y)	0.30	0.09	0.42	0.41	0.53
BRI	ROE (X1)	0.11	0.06	0.16	0.17	0.17
	SIZES (X2)	21.05	21.02	20.89	20.81	20.68
	DPS (Y)	3.48	1.97	3.34	2.62	2.12

Based on the table above, it can be seen that Return On Equity (ROE) and Company Size in state-owned banks (Bank Mandiri, BNI and BRI) have increased and decreased due to fluctuations. Bank Mandiri for the 2021-2017 period, in the ROE (Return On Equity) section in this section did not experience too significant an increase or decrease in its movement, which means the company was able to maintain its profit from the previous year, but to increase it the company did not yet have this ability. Judging from the data that has been calculated on the variable Company Size (Size) in 2021 there has been an increase. This proves that the company is successful in managing and carrying out its business activities and finally DPS (Dividend Per Share). Judging from the calculations, the DPS generated from 2017-2020, experienced significant ups and downs. In 2019, it achieved a value of 1.41, while in 2020 it received a value of 0.88, but experienced another increase of 1.44.

At BNI, in calculating ROE, the smallest figure was in 2020, which was 0.03, but in 2021 it managed to rise to 0.09. Even so, the company has not been able to utilize the company's profits properly. For Size, the value that has been obtained has increased, just like Bank Mandiri, which means that BNI is capable and successful in handling its business. And finally DPS which in 2017 experienced an increase of 0.53 but decreased, every year until 2020 it reached a value of 0.09, but in the end it increased again by 0.30, which means the company is able to provide a high portion of profits to investors.

At BRI, the ROE value in 2020 has decreased, but in 2021 it has increased again by 0.11, which means that the company is quite capable of making good use of company profits. The Size value generated by BRI also increased in 2021 to 21.05, previously in 2020 it was 21.02, which means the company managed to manage its business well and finally the value of DPS where the result of the calculation in 2021 has increased by 3.48, which was previously in 2020 decreased by 1.97, which means that the company is quite capable of providing high profits to investors.

Table 3 Descriptive Data Results Using SPSS

		Descriptive Statistics			
		Minimum	Maximum	Means	std. Deviation
ROE	5	0.03	0.17	0.1213	0.03962
SIZE	15	20.38	21.27	20.8893	0.28699
DPS	15	0.09	3.48	0.3847	1.09764
Valid N (listwise)	15				

Based on the results of these calculations, it can be seen that, in the variable X1 (Return On Equity (ROE)), the minimum value is 0.03, the maximum value is 0.17, the average is 0.12 and the standard deviation is 0.04. It can also be concluded that the variable X1 has a low deviating value. Variable X3 (Company Size), has a minimum value of 20.38, a maximum of 21.27, an average of 20.89 and a standard deviation of 0.29. Finally, the Y variable, namely DPS, has a minimum value of 0.09, a maximum value of 3.48, an average of 0.38 and a standard deviation of 1.10. The results of the research from the data above can be concluded that the variables X1, X2, and Y have a low standard deviation from the average value. This means that the variable has a small deviation value or has a good deviation.

P-Plot Normality Test

The P plot is said to contribute normally, so the plots (dots) that describe the actual data follow the diagonal line and the distance between the plots is close together. Regardless of the results of the test,

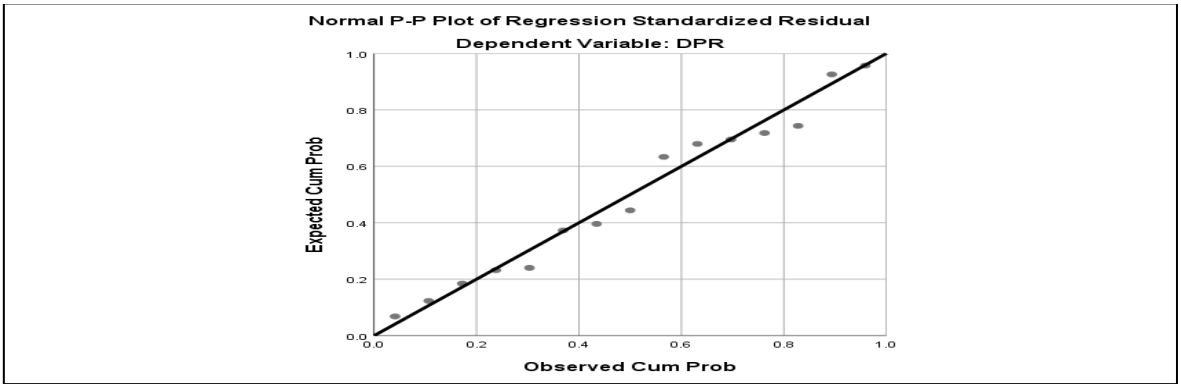

Figure 1. Normality Test Results with P-Plot Data Using SPSS

From the graph above, it can be seen that the data points spread around the diagonal line, and the distribution follows the direction of the diagonal line. So the regression model in this study can be said to meet the normality assumption requirements.

Kolmogorov–Smirnov test

The Kolmogrov-Smirnov test is said to be normally distributed if the significant value is greater than 0.05 (sig > 0.05) and is said to be not normally distributed if the significance is less than 0.05 (sig <0.05). The following are the results of the test using SPSS.

Table 4. Normality Test Results with Kolmogorov-Smirnov Using SPSS

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residuals
N		15
Normal Parameters, b	Means	0.0000000
	std. Deviation	1.00290261
Most Extreme Differences	absolute	0.152
	Positive	0.152
	Negative	-0.105
Test Statistics		0.152
asymp. Sig. (2-tailed)		0.200c,d

From the results of the data using the Kolmogorov-Smirnov test, it can be concluded that the significant value obtained is 0.200, meaning that the data is normally distributed because it is above 0.05.

Multicollinearity Test

Multicollinearity can be detected by looking at the Variance Inflation Factor (VIF) and Tolerance. If the Variance Inflation Factor is below 10 and the Tolerance is close to 1 then there is no multicollinearity, and if the data obtained is the opposite, it means that the data has multicollinearity. The following is the SPSS data obtained,

Table 5. Multicollinearity Test Results Using SPSS

Coefficientsa						
	Unstandardized Coefficients		Standardized Coefficients	Collinearity Statistics		
	B	std. Error	Betas	tolerance	VIF	
1	(Constant)	-53,502	14,603			
	ROE	10,520	5061	0.380	1,000	1,000
	SIZE	2,566	0.699	0.671	1,000	1,000

Judging from the results of the data above, ROE has a tolerance value of 1,000 and a VIF value of 1,000. And finally, SIZE has a tolerance value of 1,000 and a VIF value of 1,000. From the conclusions of the data above, the data does not have symptoms of multicollinearity, meaning that the linear relationship between variable X in this regression model is not correlated with each other.

Autocrelation Test (Run Test)

Requirements in the run test test, namely if the value of Asym.Sig (2-tailed) < 0.05 then, there is a symptom of autocorrelation and if the value of Asym.Sig (2-tailed) > 0.05 then, there is no symptom of autocorrelation. Following are the results of the data from the autocorrelation test (Run Test), using SPSS,

Table 6. Results of Autocorrelation Test with Run Test Using SPSS

Run Test	
Value test	-0.00700
Cases < Test Value	7
Cases >= Test Value	7
Total Cases	15
Number of Runs	7
Z	-0.278
asymp. Sig. (2-tailed)	0.781

Judging from the runt test requirements and data results above. So, it can be concluded that the data does not have autocorrelation symptoms due to the Asymp value. Sig. (2-tailed) is 0.781 which is greater than 0.05.

Discussion result

Based on the research that has been done, in detail regarding the test results it can be explained how the relationship and influence of Return On Equity (ROE) and Company Size on Dividend Per Share (DPS) in BUMN-owned Banking in 2017-2021 get the results of the Hypothesis Test, as follows,

Effect of Return On Equity (ROE) (X1) on Dividend Per Share (DPS) (Y)

Based on the test results from the hypothesis test above, it shows that the results of the Return On Equity (ROE) statistical T test affect the Dividend Per Share (DPS). Because, the return on equity (ROE) is 0.060 > 0.05, then Ho is rejected and Ha is accepted. Which can be interpreted that the variable Return On Equity (ROE) has no effect on Dividend Per Share (DPS). Then seen from the comparison of the values in the data above is 2,079 with values where the degrees of freedom df = nk-1, df = 15-3-1 = 11, k = 3 andα= 5% so that the value is 2,201. Because the value is smaller than the value, namely 2.079 < 2.201. Based on hypothesis testing, the first hypothesis (Ho) which states Return On Equity (ROE) has an effect on Dividend Per Share (DPS) with a coefficient value of 0.592 or 59.2%.

The results of this study are in line with research conducted by Mia Nur Rahmasari's (2017) and Unik Agustina (2012) studies, which state that the variable Return On Equity (ROE) has an effect on Dividend Per Share (DPS). It can be concluded that the Dividend Per Share (DPS) in these banking companies is not influenced by the Return On Equity (ROE) technique which is carried out, namely by distributing dividends using the company's cash outflow, this is recorded in the existing financial statements. Based on managerial actions in accordance with those produced by the company during the current period.

Effect of Firm Size (X2) on Dividend Per Share (DPS) (Y)

Based on the test results from the hypothesis test above, it shows that the results of the statistical T-test of firm size have an effect on dividend per share (DPS). Because, the result value of Firm Size is 0.003 < 0.05, then Ho is accepted and Ha is rejected. Which can be interpreted that the variable company size affects the Dividend Per Share (DPS). Then seen from the comparison of the values in the data above is 3,673 with values where the degrees of freedom df = nk-1, df = 15-3-1 = 11, k = 3 andα= 5% so that the value is 2,201. Because the value is smaller than the value, namely 3,673 <2,201. Based on hypothesis testing, the first hypothesis (Ho) which states that firm size has an effect on dividend per share (DPS) is supported with a coefficient of 0.727 or 72.7%.

The results of this study are in line with research conducted by Mia Nur Rahmasari's (2017) and Anul Yaqin (2015) studies, which state that the variable company size affects dividend per share (DPS). It can be concluded that the Dividend Per Share (DPS) in banking companies is influenced by the Company Size technique which is carried out by means of distributing dividends using the acquisition of funds through capital market accessibility so that it will reduce dependence on the company's internal funding.

Effect of Return On Equity (ROE) (X1) and Firm Size (X2) on Dividend Per Share (DPS) (Y)

Based on the test results from the hypothesis test above, it shows that the results of the F statistical test Return On Equity (ROE) and Firm Size have an effect on Dividend Per Share (DPS) simultaneously. This can be seen from the sig. F which has been obtained through SPSS, is 0.004. Which number is smaller "<" than 0.05. Then, judging from the comparison, the value is 8,985 with values where the degrees of freedom are df 1 = nk, df = 15-4 = 11, df2 = k-1, df = 4-1 = 3 andα= 5% so that the value is 3.59. Because the value is greater than the value that is equal to 8.985 > 3.59. Which can be interpreted simultaneously variable X affects variable Y then Ho is accepted and Ha is rejected. The coefficient of determination of 0.807 or 80.7% indicates that the variables Return On Equity (X1) and Company Size (X2) are able to explain the Dividend Per Share (DPS) (Y) variable of 0.825 or 82.5%. While the remaining 26.8% is explained by other variables outside the regression equation.

4. CONCLUSION

Based on the results of the analysis that has been done, it can be concluded that Return On Equity (ROE) (X2) has a partial effect on Dividend Per Share (DPS) (Y). The results of the partial test (T test) show that the value is 2.079 < the value of 2.201 and the significance level is 0.060 > 0.05. So it can be concluded, Ho is rejected and Ha is accepted. With a correlation coefficient of 0.592 or

59.2%. It can be interpreted that ROE is not going well, this is because the cash flow obtained through the capital provided by investors has not been managed very well. This has not been able to affect the Dividend Per Share (DPS) in state-owned banks for the 2017-2021 period. Firm size (X3) has a partial effect on Dividend Per Share (DPS) (Y). The results of the partial test (T test) show that the value is 3,673 > value 2. 201 with a significance level of 0.003 <0.05. So it can be concluded, Ho is accepted, Ha is rejected. With a correlation coefficient of 0.727 or 72.7%. It can be concluded that a good company size can increase a good Dividend Per Share (DPS) for BUMN-owned Banking companies for the 2017-2021 period. Return On Equity (ROE) (X2), and company size (X3) have an influence on Dividend Per Share (DPS) (Y). Simultaneous test results (Test F) showed a value of 8.985 > 3.59 with a significant level of 0.004 <0.005. So it can be concluded, Ho is accepted, Ha is rejected. It can be concluded that the three (3) variables used in this study can be influenced simultaneously for Dividend Per Share (DPS). This can be seen from the coefficient of determination of 0.855 or 85.5%,

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