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Abstract

The purpose of this study is to determine the effect of current ratio and debt to equity ratio on price to book value through mediation of return on assets in cement sub-sector companies listed on the Indonesia Stock Exchange in the period 2013-2017. The sample used in this study is a group of cement sub-sector companies listed on the Indonesia Stock Exchange, which total 5 cement companies and have been listed on the IDX in the period 2013-2017. The analytical techniques used are with linear regression equations, coefficients of determination, test F, and test T. Data is analyzed with the help of SPSS software. The results of the analysis obtained, current ratio, debt to equity ratio and return on assets have a significant effect on price to book value in the cement subsector on the Indonesia Stock Exchange, in addition debt to equity ratio is the most dominant variable.

Keywords

Current ratio (CR); debt to equity ratio (DER); price to book value (PBV); return on assets (ROA)

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I. Introduction

The rapid development of the era encourages owners and management to develop their business both short-term and long-term. The goal is to achieve mum's profit andtry to prosper the owners and members in itand be able to survive in industrial competition. A company that has maximum value can be reflected in its stock price that is in the market and is fully determined by the market. The company's goals generally do not have a substantial difference, it's just that the focus of the goals that each company will achieve is different from one to the other. In this regard, every company should have a good and satisfactory financial performance, to support the achievement of company targets. Not only that, but the company can also grow and developwell.

According to Martono and Harjito in Dangnga & Haeryddin, (2018) financial performance is defined as a form of assessment of the state or financial condition of a company in which it can be a source of information either past, present or future. Assessment of the performance of a company is done as a form of improvement of functional activities in the company so that the company can develop for the better and can survive in competition with other companies (Sipahelut et al., 2017). Various techniques of measuring the company's financial performance have been developed so far by experts to be able to provide a proper picture of each business. The financial performance of a company can be measured through financial statement analysis and financial ratio analysis (Dangnga & Haeruddin, 2018).

Through financial statements can provide a summary of the financial condition of a company, where thebalancesheet (balance sheet) will reflect the position of assets, liabilities and own equity owned by the company in a certain period. While the income statement (incomestatement) reflects the achievement of results in one period usually one year. By assessing financial statements, it will be known the situation and financial

development more definitively, at least in the short term. In this regard, a company must keep its finances in a safe position. This safe position is illustrated by the results of the review of its financial statements. While through the analysis of financial ratios, it is needed by important parties in the company such as investors, creditors, and managers.

Through financial ratio analysis can be known the position of the company compared to other companies in an industry group (Dangnga & Haeruddin, 2018). Good management and functional capabilities can increase net profits so that it will be able to make the market price per share become higher and even from the book value of the stock itself. There are several types of ratios, namely, liquidity ratio, olvabilityratio, activity ratio, and profitability ratio (Dangnga & Haeruddin, 2018). Analyze the ratio by comparing the stock price to book value, called Price to Book Value (PBV). Through this ratio can provide an overview of several times the payout of a stock with the book value of the company (Houston, 2011).

According to Murhadi in Edward &Simorangkir, (2020), there are several reasons for the use of the price to Book Value (PBV) ratio, includingfirst, for investors who lack confidence in evaluating cash turnover, book value is relatively more stable. Second, the implementation of more standard accounting of each company with another company causes price to book value (PBV) can signal the value of the company is below or too expensive. Finally, through Price to Book Value (PBV) can cover the weaknesses that exist in the Price Earnings Ratio, consideringthat companies that have negative profits do not use price earnings ratios.

The group of companies in the cement sub-sector listed on the Indonesia Stock Exchange is the object in this study, where in general the company's shares are quite in demand by investors in relation to the condition of the Indonesian state which is active in carrying out infrastructure development both in the short and long term. So, it is assumed that with the conditions that are thought of, the shares in this group of cement companies have good prospects and deserve to be one of the investment goals for investors.

Based on the description in this study conducted aims to find out the influence of current ratio, debt to equity ratio and return on assets simultaneously on price to book value. And see which variables are dominant influence on price to book value in cement sub-sector companies that have been listed on the Indonesia Stock Exchange in the period 2013 to 2017.

II. Research Methods

2.1 Sample

The sample involved in this research is a cement sub-sector company that has been listed on the Indonesia Stock Exchange (IDX) in the period 2013 to 2017. The sample amounted to 5 companies namely PT Indocement Tunggal Prakasa Tbk (INTO), PT Semen Baturaja (Persero) Tbk (SMBR), PT Holcim Indonesia Tbk (SMCB), PT Semen Indonesia (Persero) Tbk (SMGR) and PT Wijaya Karya Beton Tbk (WTON).

Samples are collected through *purposive samplingtechniques*, which are sampling techniques through predetermined criteria (Sugiyono, 2016). The sample criteria used are companies that can present a complete summary of financial performance statements in the IDX in the period 2013 to 2017.

2.2 Data Collection Techniques

The technique of collecting this research is a method of documentation, namely data collection in the form of notes, transcripts, books, newspapers, magazines, inscriptions, meeting minutes, agendas and so on (Arikunto, 2019). Researchers compiled financial

performance statements of cement sub-sector groups in 2013-2017. Furthermore, a special data collection is carried out for CR, DER, ROA, BV, and Stock Price. The score of the results of the financial analysis is summarized and validated and finally serready foranalysis.

2.3 Data Analysis Methods

The preliminary data in the study was analyzed using multiple linear regression analysis. But previously the data was done testing classical assumptions first to get better results (Ghozali, 2016). Next, there is an analysis of multiple coefficients of determination, test F and T test.

III. Results and Discussion

3.1 Descriptive Statistics

Descriptive test results were obtained several outliers among the sample. *Outlier* here is a unique data, looks not the same from other observers and appears in an *ekstream* value. A total of 25 data were used in the study.

3.2 Classic Assumption Test

a. Multicollinearity Testing

Multicollinarity tests with VIF values < 10 and Tolerance > 0.1, can be asked to have a good regression model (Priyatno, 2011). Test results obtained VIF values and *Tolerance values* respectively, at the current *ratio* VIF = 1.803 < 10, *tolerance* = 0.555 > 0.1; *debt to equity ratio* VIF = 1.617 < 10, *tolerance* = 0.618 > 0.1; and *return on assets* VIF = 2.075 < 10, *tolerance* = 0.482 > 0.1. From these results the data is declared uncollinearity.

b. Autocorrelation Testing

In the autocorrelation test the rule used is the absence of autocorrelation problems in regression models. The score is 0.05 significance with the amount of data (n) = 25 and k = 4 (independent variable) obtained dL = 1.0381 and the value dU = 1.767. So obtained 4-dU = 2,233 and 4-dL = 2.9619. This is because DW (2,284) is in the area between dU and 4-dU or 2,233 < 2,284 < 2.9619, then the results can be interpreted as non-autocorrelated.

c. Heteroskedasticity Testing

The result of a good regression model is the absence of heteroskedasticity. It can be seen in scatterplots, i.e. the spread of dots should be around a diagonal line (Priyatno, 2011). The test results obtained the number of dots scattered randomly between diagonal lines, in the Normal *P-Plot of Regression Standardized Residual*. The spread is in many directions. This indicates that there is no heteroskedasticity.

d. Determination Coefficient Test Results (R2)

The results of the coefficient of determination^(R2) can be shown in table 1 below: **Table 1.** Determination Coefficient Test Results^(R2)

				Mo	odel Summa	ry ^b				
					Change Statistics					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	Durbin- Watson
1	.727ª	.528	.461	126.69128	.528	7.837	3	21	.001	2.284

a. Predictors: (Constant), Return on Assets, Debt to Equity Ratio, Current Ratio

b. Dependent Variable: Price to Book Value

From the table above can be seen the level of relationship between CR, DER and ROA to *PBV* of 0.727 or 72.70 percent. This means that this result belongs to the group kategori strong. While the level of influence between *CR*, DER and ROA on PBV is 0.528 or 52.80 percent.47.20 percent of the rest is influenced by other factors outside the variable and includes errors that affect price to book *value*.

3.3 Hypothesis Testing

a. Test Results F

In table 2 below, the results of the stimulant test (test F):

ANOVA ^a							
Model		Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	377365.454	3	125788.485	7.837	.001 ^b	
	Residual	337064.306	21	16050.681			
	Total	714429.760	24				

Table 2. Simultaneous Test Results (Test F) ANOMAR

a. Dependent Variable: Price to Book Value

b. Predictors: (Constant), Return on Assets, Debt to Equity Ratio, Current Ratio

Based on table 2 it is known that *CR*, DER and *ROA* significantly affect *PBV*, with the value F calculated 7.837 (F table = > 3.07), p= 0.001 (< 0.05). From these results confirmed that two free variables can be predictor variables for price *to book value* in the group of cement sub-sector companies on the Indonesia Stock Exchange.

b. Test Results T

The t test is performed to determine the influence of individually independent variables and partially dependent variables. The rule of the t test is that if the value p < 0.05 then H1 is accepted while H0 is rejected. In the table below, the results of the test t show.

Tuble 5. Failur Test Results (Test t)							
Coefficients ^a							
		Unstanda	ardized	Standardized			
		Coeffic	cients	Coefficients			
Model		В	Std. Error	Beta	t	Sig.	
1	(Constant)	-87.542	78.536		-1.115	.278	
	Current Ratio	.003	.002	.284	1.410	.173	
	Debt to Equity Ratio	2.233	.492	.866	4.541	.000	
	Return On Assets	.170	.064	.575	2.661	.015	

 Table 3. Partial Test Results (Test t)

a. Dependent Variable: Price to Book Value

Based on table 2 it is seen that the value of t *current ratio* (CR) = 1,410 (t table = > 1.721), the value p= 0.173 (>0.05) is insignificant. The value of t debt *to equity ratio* (DER) = 4,541 (t table = > 1,721), p =0.000 (<0.05) is significant. In return *on assets* (ROA) the value t = 2.661 (t table = > 1.721), p = 0.015 (<0.05), is significant. From these results it is seen that DER becomes the dominant variable affecting PBV.

There are similarities formed from the test results in table 2 above, namely:

 $Y = -87.542 + 0.003X_1 + 2.233X_2 + 0.170X_3 + e$

Based on the equation constant -87,542 means, if the variable current *ratio* (CR), *debt to equity ratio* (DER), and return *on assets* (ROA) are fixed or zero, then the price to book *value* is worth -87,542 units or shares in this group of cement companies decreased.

The value of $\beta_1 = 0.003$ means that it has a positive or unidirectional relationship between the *current ratio* (CR) and the price to book *value*. If the CR rises by 1 unit, then the price to book *value* (PBV) rises by 0.003 with the guess of other variables being constant.

The value of $\beta_2 = 2,233$ means that there is a direct or positive relationship between the debt-to-equity *ratio* (DER) and the price to book *ratio* (PBV). If the DER goes up 1 unit, then the PBV rises by 2,233 with the guess variable linnyaconstant.

The value of $\beta_3 = 0.170$ means that it has a direct relationship or positive relationship between return *on assets* (ROA) and price to book *ratio* (PBV). If the ROA rises by 1 unit, then the PBV rises by 0.170 with the guess of other variables being constant.

3.4 Discussion

a. Influence of current ratio, deb to equity ratio and return on assets simultaneously on price to book value

Based on the results of the analysis found that CR, DER, and ROA have a significant influence on stimulants on p price *to book value*. This means that CR, DER, and ROA can predict PBV stimulantally with values This can be seen F = 7.837 > 3.07 and p = 0.000 < 0.05. The resultsare in line with previous research in which CR, DER, and ROA jointly affect price to book *value* (Julianti, 2016; Sutrisno, et al., 2016; Sutrisno & Yulianeu, 2017).

Related to theasil is needed good corporate finance, this is realized through the availability of lancer assets as a guarantee to pay short-term obligations. In addition, through a good debt to equity ratio will be able *to* guarantee that every debt held will be guaranteed more than every capital owned by the company. This is what can affect the price to book *value* proportionally. The availability of several current assets shows that the company has a strong guarantee to be able to pay several its short-term liabilities and cash dividends to shareholders supported by the ratio of liabilities that can be guaranteed by several company equities increasingly make the public believe that this group of cement companies has good liquidity and solvency for the short and long term.

b. Effect of current ratio on price to book value

Current ratio (CR) in the results of the analysis of the value p = 0.173>0.05, meaning that CR turned out to have no effect on *the price to book value* (PBV), Hal is in line with Sutrisno and Yulianeu, (2017), in his research the current *ratio* has no significant effect on price to book *value*. So, the small current *ratio* owned by the company will not affect the price to book *value* of cement sub-sector companies in the IDX. This condition shows that the market is not only measured through the small current *ratio* because looking at the current situation, but the company's obligations in this cement market are also large enough that the availability of several assets is to pay several short-term liabilities that are immediately due. In this development era, in addition to needed raw materials from cement to support various infrastructure development but production costs are relatively high and demand quality that must also be good. This condition also has similarities with the subsector of *property* and real *estate* companies in the IDX.

c. Effect of debt-to-equity ratio on price to book value

Based on the results of the analysis *debt to equity ratio* (DER) has a significant effect on the price to *book ratio* (PBV), with a value of p = 0.000 (<0.05). DER becomes the most dominant variable affecting the price to book *ratio*. This is supported by the results of Julianti's research, (2016),in which DER has a significant effect on price to book *value* (r = 0.260). If the DER is high, then the price to *book value* will be lower and vice versa. This result illustrates thatthese companies are dependent on several creditors in their operations, so that several obligations become the responsibility of the company both in the short and long term. The public reaction also follows the condition of this company, where the public feels that the greater the liabilities that come from outside the company or equity from outside it will further increase the risk of the company in the future. Therefore, if you want to increase the price to book *value*, the company must reconsider its capital ratio.

d. Effect of return on asset on price to book value

In *return on assets* (ROA) it turns out to have a significant influence on return on *assets*, with the value p = 0.015 < 0.05. These results are in line with the results of Julianti's research, (2016), where *the return on assets* can have a significant effect on *price to book value*. Nilai ROA is positive value to price to book *value*, proportional conditions, in mana thehigher the price to *book value* the higher the ROA, viceversa. This situation illustrates that although the trend in other companies is declining, this group of companies is still making sustainable profits. Looks like the the future to further increase sales through the suppression of production costs. In addition, the company can wisely distribute the funds held only for the sake of the very crucial for the life of the company and the distribution of profits to each shareholder.

V. Conclusion

The conclusions in this studyare:

- 1. Current ratio, debt to equity ratio and return on assets have a significant influence on price to book value.
- 2. Dect to equity ratio is the dominant effect on price to book value.

The advice that can be given in this studyis:

- 1. Through increased sales, suppressing external debt, and optimizing the turnover of the company's assets, it is expected to be a step to maintain the balance of current ratio, debt to equity ratio and return on assets. Given the need for current assets is indispensable for the expansion of obligations to be paid in the short term.
- 2. For the debt-to-equity ratio to be suppressed again or the comparison of company capital derived from liabilities must be reduced and enlarged with the company's profit. It is expected that the results of the debt-to-equity ratio emphasis can be a financial statement improvement for the company so that later it will be able to take a picture of the improvement of the company's performance in the future. The main existence of cement sub-sector companies in the era of infrastructure development becomes very promising.

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