Determinant Share Price Of Cement Sub-Sector Companies On The Indonesia Stock Exchange (IDX)

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Abstract

This study aims to analyze the influence of On Asset Return, Debt to Asset Ratio, Price Earning Ratio on the stock prices of cement sub-sector companies listed on the Indonesia Stock Exchange for the period 2016-2020. Using the purposive sampling method obtained samples of as many as eight companies. The data analysis technique used is the panel regression model and the selection of the best regression model using chow test, Hausman test and Lagrange Multiplier test is a Fixed Effect Model method. The results of the analysis of the panel's regression model showed that the Price Earning Ratio is the variable that strongly affects stock price movements and the weakest of the variables studied is the Debt to Asset Ratio.

Keywords: Return On Asset, Debt to Asset Ratio, Price Earning Ratio, stock price and Modrl regression panel.

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I. Introduction

The capital market is one of the investment alternatives for people and companies to get working capital in addition to banking. In addition, the presence of capital markets contributes positively to state revenues, especially in terms of tax revenues. According to Law No. 8 of 1995, capital targets aim to support the implementation of national development in order to increase the equalization, growth, and stability of the national economy in the direction of improving the welfare of the people.

The Indonesia Stock Exchange (IDX) is a capital market that plays a role in Indonesia. The development of the stock exchange can be seen from the members of the exchange (issuers and investors), the development of stock prices and the value of its market capitalization. This development can be seen in Indonesia as follows:

Table 1. Development of Issuers, Active Investors, Stock Prices and Market Capitalization Indonesia Stock Exchange

No.	Year	Issuer	Active	JCI	Market Cap (Trillion Rp)	
			Investor(Thousands)	Close (Rp)		
1	2016	537	187,268	5.296,711	5.753,61	
2	2017	566	242,056	6.355,654	7.052,39	
3	2018	619	308,803	6.194,498	7.023,50	
4	2019	668	437,309	6.299,539	7.265,02	
5	2020	713	749, 917	5.979,073	6.970,01	

Source: IDX Annual Report 2020.

Based on Table 1 above, it is seen that in 2020 JCI decreased by 5.1% and Market Capitalization decreased by 4.1%. The decline of JCI and market capitalization in 2020 due to the COVID-19 pandemic has swept the world and impacted the economy and society globally. The pandemic conditions have prompted IDX to accelerate its digital transformation and bursa members can access the Jakarta Automated Trading System (JATS) from home in real time with the Work From Home (WFH) mechanism for both IDX managers and Investors, so that activities on the IDX do not stop. This can be seen from the number of investors experiencing an increase of 71.49% and the increase caused by the technology efficiency owned by IDX helps retail investors trade online comfortably from their residences in real-time. The technology owned by IDX not only provides trading convenience, but also makes retail investor trading more active. In addition, pandemi has also disrupted business in many industries, so that the global economy contracted with negative growth of 4.3%, and Indonesia's GDP contracted 2.1%. This condition has caused 6 (six) companies that have experienced delisting

caused by doubts over business sustainability (Going Concern), Voluntary Delisting and Force Delisting recorded by the IDX.

At the end of 2020 there were 713 companies listed on the IDX, as reported by the EY Global IPO Report in the fourth quarter of 2020, IDX is still the Exchange with the highest number of IPOs among member countries. ASEAN (51 companies), and ranks 7th on the global scene. Companies that want to develop their business can increase their business capital through banking and capital markets. To get working capital through the Stock Exchange is to sell shares in the capital market. The determining indicator for investors to choose profitable stocks is one of them is from the financial performance of the company. Financial statements can show some information about income statements, capital ownership statements, cash flow statements, balance sheets and records about those financial statements according to rentability ratios, solvency ratios, liquidity ratios, and profitability ratios.

Research on factors affecting stock prices by the performance of the company was conducted by Menike M. G. P. D. and U. S. Prabath (2014), Hidayat Ihsan Abditama and Sylviana Maya Damayanti (2015), Fouzan Al Qaisi et al (2016), Ms. Sujeewa Kodithuwakku (2016) and Budhi Suparningsih (2017), Fatmasari Sukesti et al (2021).

Based on the description above, the author wants to see the determinant of the stock prices of cement sub-sector companies from 5 cement companies that have been listed on the Indonesia Stock Exchange (IDX). Stock Prices in Cement Sub-Sector Companies listed on the Indonesia Stock Exchange that experience fluctuations annually which can be seen in figure 1 below:



Source: idx.co.id. The data has been processed

Based on figure 1 above the average Share Price of cement sub-sector companies listed on the IDX, the highest is pt . Indocement Tunggal Prakarsa (INTP) and followed by the company PT. Semen Indonesia (Persero), Tbk (SMGR). The condition of the two companies is very striking from the other 3 companies, namely PT. Semen Batu Raja (Persero) Tbk (SMBR), PT. Wijaya Karya Beton, Tbk (WTON) and PT. Bangun Indonesia Solution, Tbk (SMBC). In addition, when compared with the average stock price in the Indonesian Capital Market to the two companies showed a very high value as well.

This stock price inequality is certainly due to investor confidence in the company, one of which can be seen from the average value of Return on Assets is reflecting the company's ability to generate net income based on the level of assets owned. The company's Return On Asset (ROA) value can be seen in the following image:



Source: idx.co.id. The data has been processed

Figure 2. Average Return On Assets Cement Sub-Sector Companies listed on the IDX

Based on figure.2 above explains the average ROA of cement sub-sector companies listed by IDX has fluctuated. This means that the company's ability to generate profits from invested assets does not show an increasing trend. If you look again at the ability of the invested assets, on average, it produces a profit below 10% of the assets invested, except for pt. Indocement Tunggal Prakarsa, Tbk (INTP) in 2019 and PT. Semen Indonesia (Persero), Tbk (SMBR) in 2016 above 10%. During the Covid-19 Pandemic, the company's ability to generate profits from assets invested below 2% except pt. Single Initiative Indocement (INTP) of 3.7%. Another factor that affects the rise and fall of stock prices is seen the value of the company's Debt to Asset

Ratio. Debt to Asset Ratio is a ratio that is used to see how much assets a company is funded by debt. Regarding the debt to asset ratio of cement companies can be seen in the following figure:



Source: idx.co.id. The data has been processed

Figure 3. Average Debt to Asset Ratio Cement Sub-Sector Companies listed on the IDX

Based on figure 3 above the average Debt To Asset Ratio (DAR) of 5 cement sub-sector companies listed on the IDX for the period 2018 - 2020, it can be seen that the companies that are assets of companies that are funded by the largest debt are SMCB companies and Followed by SMGR. The lowest is WTON. During the Covid-19 pandemic, where the company experienced severe pressure due to all business activities in the limits, it is still seen that the two companies are funded by debt and the ratio is not. It is much different from the conditions in 2019.

Another variable that is considered by investors who want to own shares of a company is the Price Earning Ratio (PER). Price Earning Ratio (PER) is a comparison between the price of a stock in the market compared to the opinion that investors will receive. The higher the PER value of a company shows that the expectations of the invertor about the company's achievements in the future are high as well. Meanwhile, another factor that influences the decision of investors to own shares of a company is Net Profit Margin and that decision will affect the price of the shares they want to own. According to investors with Net Profit Margin can analyze how efficiently management manages the company, generates profits and generates its sales. If the high net profit margin value indicates that the company is in setting the price of its products correctly (the right cost calculation).



Source: idx.co.id. The data has been processed

Figure 5. Average Net Profit Margin Cement Sub-Sector Companies listed on the IDX

Based on the image above, it can be seen that the company with the highest NPM is INTP, its value is far above the other 4 companies. The high NPM value increases the confidence of investors to invest in the company.

Hal above, the author feels motivated to do to find out how much Return On Assets (ROA), Debt To Assets Ratio (DAR), Price Earning Ratio (PER), and Net Profit Margin (NPM) To Stock Prices In Cement Sub-Sector Companies Listed on the Indonesia Stock Exchange.

II. Literature Review

The stock price, according to Fahmi (2013) is one of the most in-demand capital market instruments by investors, because it can provide an attractive level of return. And Darmadji and Fakhruddin (2012), stocks (stock) is a sign of the participation or ownership of a person or entity in a company or limited liability company. According to Eduardus Tandelilin (2010) stock is a picture of investors' expectations of earning factors, cash flow and return levels required by investors. The stock price used in this study is the closing stock price which means the price requested by the seller or buyer at the end of the exchange day.

Return On Assets (ROA) according to Kasmir (2014) is "return on assets is a ratio that shows the return (return) of the amount of assets used in the company" and Yolanda and Sumarni (2018) stated that Return On Assets is an indicator that can determine the financial performance of a company. company. Financial performance is the company's ability to manage and control its resources. While Fahmi (2015) stated that the return on investment shows the extent to which the investment that has been invested is able to provide a return on profits as expected and the investment is actually the same as the company's assets invested or placed. And Brigham & Houston (2010) can be formulated:

laba bersih

$ROA = \frac{1}{total aset} \times 100\%$

Researchers who discuss return on assets (ROA) have a positive and significant effect on stock prices are I Gusti Ayu Purnamawati (2016) and Rina et al (2021).

Debt To Asset Ratio (DAR) is a debt ratio used to assess the comparison between total debt with total assets or how much the company's assets are financed by debt or how much the company's debt affects asset management (Cashmere, 2014). While Fahmi (2013) stated that the Debt to Total Assets Ratio is a comparison of the company's debt with the assets owned by the company. So that this ratio can assess the percentage of funds derived from debt both short-term and long-term. According to Sutrisno (2012) the debt to asset ratio formula is *total debt*

The relationship of Debt To Asset Ratio with share prices was discussed by Nur Ulfi Zakiah Mukhtasyam et al (2020) and Sudirman et al (2020) with insignificant results.

The Price Earning Ratio (PER) is one of the largest measures in stock analysis fundamentally and part of the valuation ratio for evaluating financial statements. The price earning ratio is very useful to know how the market values the performance of a company's stock against the performance of the company described in earnings per share. According to Brigham and Houston (2013) price earning ratio is: "The ratio of price per share to earnings per share. Jogiyanto (2013) stated that the price earning ratio is a ratio that shows how much

shareholders value the price of the stock against multiples of earnings. Systematically the formula for calculating the Price Earning Ratio is as follows:

x_100%

share price
PER = _____

earnings per share (Brigham and Houston, 2013)

How much per plays in determining stock prices was researched by Md. Shariful Islam (**20115**), Junjie Wang et al (2013), and Oliver Ike Inyiama and Caroline Ozouli (2015) who expressed a positive and significant relationship.

Net Profit Margin (NPM) is the ratio between net income (Net Profit) i.e. sales after deducting all expenses including taxes compared to sales (Brigham and Houston, 2013). Thus this rasio describes how much percentage of net profit is obtained from each sale. The greater this ratio, the better the company's ability to get high profits. The Formula *net proft margin* (NPM) can be stated as follows:

Net Profit Margi =Earning After TaxesNet Sales

(Smart et al., 2019; Tee, 2019)

Research on *Net Proft Margin* (NPM) and its effect on stock prices has been conducted by Sudirman et al (2020) and the results are significant.

METHODS OF RESEARCH

The empirical analysis of this study covers the period 2016 to 2020 (quartalan data) from 5 Semen companies listed on the Indonesia Stock Exchange. The company is PT. Indocement Tunggal Prakarsa, Tbk, PT. Semen Indonesia (Persero), Tbk, PT. Semen Batu Raja (Persero), Tbk, PT. Wijaya Karya Beton, Tbk and PT. Solusi Bangun Indonesia, Tbk. The study used a panel data model that combines crosssection data and time-series data. And this research is quantitative and descriptive research that discusses the influence of independent variables on dependent variables such as the framework of thought below:



Figure 6 Frame of mind

Information

- 1. $_{X1}$: Return on Assets
- 2. $_{X2}$: Debt to Asset Ratio
- 3. _{X3} : Price Earning Ratio
- 4. $_{X4}$: Net Profit Margin
- 5. Y: Stock Price

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The analysis techniques in this study were carried out using multiple linear regression analysis tools with hypotheses in this study as follows:

1. *Return On* Assets (ROA), *Debt To Assets Ratio* (DAR), *Price Earning Ratio* (PER) and *Net Profit Margin* (NPM) simultaneously contributed significantly to the *Listed Cement* Sub-Sector Company Share Price on the Indonesia Stock Exchange .

2. *Return On Assets* (ROA), *Debt To Assets Ratio* (DAR), *Price Earning Ratio* (PER) and *Net Profit Margin* (NPM) partially affected the *Share Price* of Cement Sub-Sector Companies listed on the Exchange Indonesia effect.

This test was done using the *Eviews 9 for windows operating system* program. Before conducting the t test and ji F test, the Classic assumption test is carried out, namely the normality test, multikolinierity, autocolation, and heteroskedastity.

The shape of the equation structure of the panel data analysis model is as follows:

 $\mathbf{Y} = \mathbf{a} + \boldsymbol{\beta}_1 \mathbf{X}_1 + \boldsymbol{\beta}_2 \mathbf{X}_2 + \boldsymbol{\beta}_3 \mathbf{X}_3 + \boldsymbol{\beta}_4 \mathbf{X}_4 + \boldsymbol{\varepsilon}$ Description; Y = Stock flice - RETURN ON ASSERS X1 a = Constant= Debt to Asset Ratio X2 = Koefesien first regression X3 β_1 = Price Earning Ratio = Koefesien regression second X4 = Net Profit Margin β_2 = Third regression metacrisien $\varepsilon = Error$ β3 = Fourth regression koefesien β_4

Because the data used is panel data, 3 Model analysis panel data will be obtained which is grouped into: (1) models without individual effects (common effect), (2) models with individual effects (fixed effect) and (3) Random effect. To get the best model is done with chow test, hausman test and Lagrange Multiplier Test. After that it is continued by looking at the Coefficient of Determinance (KD).

III. Results And Discussion

After testing with the *Eviews 9 program for windows operating system* regression model is free from the display of classical assumptions (normality test, multikolinierity, autocolation, and heteroskedasticity). Modeling in using panel data regression techniques obtained three methods namely The Common Effect Method, Fixed Effect Model and Random Effect Model. These methods are :

Variable	Common Effect Model			Fixed Effect Model			Random Effect Model		
	Coefisien	t-	Prob.	Coefisien	t-	Prob.	Coefisien	t-	Prob.
		Statistics			Statistics			Statistics	
С	9.4621	24.45897	0.000	8.166351	32.28486	0.000	9.462047	48.81581	0.000
LNROA	0.0146	0.201978	0.840	0.200095	4.895672	0.000	0.014587	0.403113	0.688
LNDAR	0.3108	4.256613	0.000	0.168803	2.248222	0.027	0.310752	8.495449	0.000
LNPER	0.49248	8.077895	0.000	0.362219	8.687326	0.000	0.492406	16.12206	0.000
LNNPM	1.68398	16.95062	0.000	0.422321	4.633185	0.000	1.683962	33.83045	0.000
R-squared		0.779205		0.785175			0.779205		
Adjusted R- squared			0.769909			0.773109			0.769909
F-statistic	83.81603			202.8596			83.81603		
Prob(F-									
statistic)			0.000000			0.000000			0.000000

 Table 2

 Common Effect Method, Fixed Effect Model and Random Effect Model

Source: idx.co.id. Data processed by Eviews 9

Based on table 2 above, it is obtained that the ROA variable is not significant with the random effect method of the model is not significant. While the influence of ROA, DAR, PER and NPM together affects the highest stock price is shown by the fixed effect model method which is 77.3%. To obtain the regression equation is best done Uji Chow, Uji Hausman and Lagrange Multiplier Test and the result is the equation that is best indicated by the *Fixed effect Model* method.

The multiple linear regression equations of the Fixed Effect Model are as follows:

LnY = 8.166351+ 0.200095 LnROA+0.168803 LnDAR+0.3622219LnPER+0.422321 LnPM

Based on the fixed effect model obtained uji F-statistical probability value of $0.0000000 < \alpha = 0.05$ which means positive and significant. This shows that the variables ROA (X1), DAR (X2), PER (_{X3}), and NPM (X4) simultaneously have a significant and positive influence on the Stock Price. And Uji t is:

a) The effect of Return On Assets (ROA) on the Stock Price is described by the t-statistic value of 4.895672 and the probability value is smaller than $\alpha = 0.05$. The results of this study stated that ROA has a positive and significant effect on stock prices.

b) The effect of Debt to Asset Ratio (DAR) on the Stock Price with a t-statistic value of 2.248222 and the probability value is smaller than $\alpha = 0.05$. The results of this study stated that DAR has a positive and significant effect on stock prices.

c) The Price Earning Ratio (PER) to the Stock Price is described by the t-statistical value of 8.1687326 and the probability value of 0.0000. The results of this study stated that PER has a positive and significant effect on stock prices.

d) Net Profit Margin (NPM) to Stock Price npm probability value is smaller than $\alpha = 0.05$. The results of this study stated that NPM has a positive and significant effect on stock prices.

The contribution between the indepeden variable to the rise or fall of the dependent variable is indicated by the value of \mathbb{R}^2 0.773109. The figures show that the contribution of the influence of Return On Assets, Debt to Asset Ratio, Price Earning Ratio and Net Profit Margin to The Share Price is 77.31%. While the remaining 22.69% is the influence of other factors outside the study.

IV. Conclution

This research aims to examine the stock market price determinants of cement companies listed on the Indonesia Stock Exchange. Related data was collected for the 2016-2020 period from the Indonesia Stock Exchange from 5 cement companies, namely PT. Indocement Tunggal Prakarsa, Tbk, PT. Semen Indonesia (Persero), Tbk, PT. Semen Batu Raja (Persero), Tbk, PT. Wijaya Karya Beton, Tbk and PT. Solusi Bangun Indonesia, Tbk. Data analysis uses Pooled OLS regression with fixed effect model as the best model. The results of the study described the relationship of stock market prices simultaneously positive and significant, while partial Return On Asset, Debt To Asset Ratio, Price Earning Ratio and Net profit Margin have a positive and significant effect on stock prices. For the variable Debt to Asset Ratio to the stock price contrary to the results of research Nur Ulfi Zakiah Mukhtasyam et al (2020) and Sudirman et al (2020) stated that the results were not significant.

In addition, the analysis of the panel's regression model also shows that the Price Earning Ratio is the variable that strongly affects stock price movements and the weakest is the Debt to Asset Ratio.

Reference

- [1]. Brigham and Houston. (2010). Basics of Financial Management Book 1 (Issue 11). Jakarta: Salemba Four.
- [2]. Brigham, Eugene F and Houston, Joel F., (2013). Basic Basic Financial Management. Issue 11. Translated by: Ali Akbar Yulianto. Jakarta: Salemba Four.
- [3]. Darmadji, Tjiptono, and Fakhruddin. (2012). Capital Market in Indonesia. Edition. Third. Jakarta: Salemba Four.
- [4]. Budhi Suparningsih (2017). "Effect of debt to equity ratio (DER), price earnings ratio (PER), net profit margin (NPM), return on investment (ROI), earning per share (EPS) In influence exchange rates and Indonesian interest rates (SBI) share price in textile and garment industry Indonesia stock exchange", *International Journal of Multidisciplinary Research and Development Online* ISSN: 2349-4182, Print ISSN: 2349-5979, 4 (11), 58-62.
- [5]. Fahmi, Irham. (2013). Financial Statement Analysis . Bandung: Alfabeta.
- [6]. Fahmi, Irham. (2015). Introduction to Financial Management Theory and Questions of Answer. Bandung: Alfabeta.
- [7]. Fatmasari Sukesti, Imam Ghozali, Fuad Fuad, Abdul Kharis Almasyhari, Nurcahyono Nurcahyono (2021), Factors Affecting the Stock Price: The Role of Firm Performance, *Journal of Asian Finance, Economics and Business*, 8 (2), 0165–0173.
- [8]. Fouzan Al Qaisi, Asem Tahtamouni and Mustafa AL-Qudah (2016). Factors Affecting the Market Stock Price The Case of the Insurance Companies Listed in Amman Stock Exchange, *International Journal of Business and Social Science*, 7 (10), 81-90.
- [9]. I Gusti Ayu Purnamawati (2016). The Effect Of Capital Structure And Profitability On Stock Price (Study Of The Manufacturing Sector In Indonesia Stock Exchange), *International Journal of Business, Economics and Law*, 9 (1), 10-16.
- [10]. Junjie Wang, Gang Fu and Chao Luo1 (2013). Accounting Information and Stock Price Reaction of Listed Companies Empirical Evidence from 60 Listed Companies in Shanghai Stock Exchange, *Journal of Business & Management*, 2 (2), 11-21, ISSN 2291-1995 E-ISSN 2291-2002.
- [11]. Cashmere. (2014). Financial Statement Analysis. Issue One. Seventh Print. Jakarta: PT. King Grafindo Persada.
- [12]. Hidayat Ihsan Abditama and Sylviana Maya Damayanti (2015). "The Influence Of Company Performance Toward Stock Price Of Pt. Xl Axiata Tbk From 2008 – 2014", *Journal Of Business And Management*, 4 (4), 510-521.
- [13]. Md. Shariful Islam, Mohammad Abdus Salam and Md. Mahmud Hasan (2015). "Factors Affecting the Stock Price Movement: A Case Study on Dhaka Stock Exchange", *International Journal of Business and Management*; 10 (10), 253-262.
- [14]. Ms. Sujeewa Kodithuwakku (2016). "Impact of Firm Specific Factors on the Stock Prices: A Case Study on Listed Manufacturing Companies in Colombo Stock Exchange", International Journal for esearch in Business, Management and Accounting, 2 (3), ISSN : 2455-6114, p. 67-76.
- [15]. Menike M. G. P. D.and U. S. Prabath (2014)." The Impact of Accounting Variables on Stock Price: Evidence from the Colombo Stock Exchange, Sri Lanka", *International Journal of Business and Management*; 9 (5); 2014, ISSN 1833-3850 E-ISSN 1833-8119, p. 125-137.

- [16]. Nur Ulfi Zakiah Mukhtasyam, Gagaring Pagalung and Arifuddin (2020), Effect of Profitability, Liquidity, and Solvability on Share Prices with Earning Per Share (EPS) As a Moderating Variables, International Journal of Innovative Science and Research Technology, Volume 5, Issue 8, p.1571-1577.
- [17]. Oliver Ike Inyiama and Caroline Ozouli (2015),"Does Earning Per Share Determine Market Price Of Ordinary Shares? Evidence From Nigeria Banking Sector (2000 2013)", *European Journal of Accounting Auditing and Finance Research*, 3 (7), 21-32.
- [18]. Rina, Gafar Samalam and Feronica Fungky Muchsidin (2021). The Factors That Affect Stock Pricesin Manufacturing Industrial Companies Listed on IDX, *Point of View Research Management* 2(2), 94-103.
- [19]. Smart, N., Briggeman, B.C., Tack, J., & Perry, E. (2019). Examining U.S. grain marketing and farm supply cooperatives' sustainable growth rates. Agribusiness, 35(4), 625–638.
- [20]. Sudirman, Muhammad Wahyuddin Abdullah, and Muhammad Obie (2020). The Effect of Current Ratio and Debt to Asset Ratio on Net Profit Margin and Stock Prices: A Study of Basic Industry and Chemicals Companies, International Journal of Scientific Research in Science and Technology, 7 (5), 282-294.
- [21]. Sutrisno. (2012). Financial Management Theory Concepts and Applications. Yogyakarta: Ekonisia.
- [22]. Tandelilin, Eduardus. (2010). Portfolio and Investment Theory and Application. The first edition. Yogyakarta: Kanisius.
- [23]. Tee, C.M. (2019). Institutional investors' investment preference and monitoring: evidence from Malaysia, *Managerial Finance*, 45(9), 1327–1346.
- [24]. Yolanda and Sumarni (2018). "Financial Performance And Factors Influencing Its Banking Companies In Indonesia Stock Exchange", Russian Journal of Aggriculture and Socio-Economic Sciences (RJOAS), 3(75), March 2018, DOI <u>https://doi.org/10.18551/rjoas.2018-03.07</u>, p. 63-72.

Sumarni, et. al. "Determinant Share Price Of Cement Sub-Sector Companies On The Indonesia Stock Exchange (IDX)." *IOSR Journal of Economics and Finance (IOSR-JEF)*, 13(02), 2022, pp. 30-37.