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# FINANCIAL PERFORMANCE ANALYSIS USING ECONOMIC VALUE-ADDED AND MARKET VALUE-ADDED METHODS

<sup>1</sup>Ariefah SUNDARI, <sup>2</sup>Ahmad Fathur ROZI, <sup>3</sup>Ana Fitriyatul BILGIES, <sup>4</sup>Ali MUHAJIR, <sup>5</sup>Novi Mei ANGGRAINI

1,2,3,4,5 Darul Ulum Islamic University, Lamongan, Indonesia

Corresponding author: Ariefah SUNDARI E-mail: ariefah.sundari@unisda.ac.id

**Abstract:** 

This study aims to determine and analyze financial performance with the Economic Value Added and Market Value Added methods in the Cement Subsector companies listed on the Indonesia Stock Exchange for 2017-2021. The research method used is quantitative with a descriptive approach, and the sampling technique in this study is purposive. The data collection techniques used secondary data through library studies and documentation studies obtained through the website https://www.idx.coid/ in the form of a Balance Sheet and Profit and Loss Report for the Years 2017-2021. The results of this study are that the three cement companies have a positive EVA value which means they have succeeded in creating economic value. One company has a negative EVA value at PT Semen Baturaja Tbk, which means the company is not able to provide added value in 2021. means providing added value through market capitalization value.

**Keywords**: Financial Performance Analysis, Economic Value-Added Method, Market Value Added Method

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## **INTRODUCTION**

In Indonesia, the economic development of companies in the manufacturing industry is very competitive. Indonesia has many manufacturing companies, including in the industrial and beverage, cosmetics and domestic goods sectors, and so on. Companies in the cement industry sector are currently attracting much attention because they play an important role in construction. Cement is the most important material in constructing high-rise structures and infrastructure. According to the government program during the leadership of President Joko Widodo (Jokowi), the government is currently focusing on infrastructure development for development, as outlined in the Medium-Term Development Plan (RPJMN) for 2015-2019 and the National Medium-Term Development Plan (RPJMN) for 2020-2025. (News.com).

The Covid-19 pandemic, which triggered an economic collapse, has also posed significant challenges to the country's cement industry. Even though it is a nationally significant industry, which allows cement industry activities to continue in the face of the Covid-19 outbreak, the main concern for cement industry players remains safety and health.

Domestic cement consumption is expected to increase by 5.9% in 2021, according to the Indonesian Cement Association (ASI). Nonetheless, cement consumption in 2020 is expected to be lower than before the Covid-19 pandemic. Domestic cement consumption in 2021 is 66.21 million tons, up from 62.51 million tons in 2020, according to the Indonesian Cement Association (ASI). Meanwhile, the 2021 consumption projection is still lower than the 69.99 million tons achieved in 2019. (globalcement.com).

Financial performance appraisal can generally utilize financial statement analysis to measure financial performance using various methodologies, including financial ratios such as liquidity ratios, profitability ratios, solvency ratios, et cetera. The concept of financial ratio analysis as a tool to measure a company's financial performance has been widely applied in most companies today. However, the use of financial ratio analysis as a traditional measuring tool has a major weakness, namely financial ratios do not take into account the risks faced by the company by ignoring the cost of capital and only paying attention to company profits, so it is difficult to know whether the company has succeeded in creating added value for the company or not (Kusumawati, 2017: 8). To overcome the weaknesses of financial ratio analysis, the concept of measuring financial performance based on added value (Value Added) was developed, namely Economic Value Added and Market Value Added.

The concept of measuring financial performance based on added value (Value Added) was developed, namely Economic Value Added (EVA) and Market Value Added (MVA), to overcome the analysis of company financial ratios. The Economic Value Added method is economic value added (EVA) equal to operating profit after tax minus the weighted average cost of capital (after tax) 30 multiplied by total assets minus current liabilities (Witjaksana, 2019:70). Apart from EVA, other approaches used to measure company performance reports based on market value. The market value calculation is known as MVA (Market Value Added). MVA is the shares' market value minus the shareholders' equity capital (Brigham, 2014: 100).

Based on the description above, the researcher is interested in researching "Financial Performance Analysis of Cement Sub-Sector Companies Registered on the Indonesia Stock Exchange" (Study of Cement Sub-Sector Companies Using the Market Value Added and Economic Value-Added Methods for the 2017 – 2021 Period).

### **METHODS**

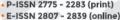
The research object used in this research is the cement sub-sector companies listed on the Indonesia Stock Exchange (IDX) for 2017-2021. The sampling technique uses the purposive sampling method. The data used in this research is quantitative. The data used in this study is secondary data obtained through the website https://www.idx.co.id/ in the form of a Balance Sheet and Profit and Loss Report for 2017-2021. The data analysis technique used in this study is the descriptive analysis by describing the research results in the form of an analysis of financial performance in cement subsector companies listed on the Indonesia Stock Exchange for the 2017-2021 period using the Economic Value Added (EVA) and Market Value Added (MVA) methods that is:

**Economic Value Added (EVA).** The steps for calculating Economic Value Added (EVA) are as follows:

- a. Net Operating Profit After (NOPAT)NOPAT = Net Profit After Tax + Interest Cost
- b. Invested Capital (IC)(IC) = (Total Liabilities and Equity) Short-Term Liabilities
- c. Weight Average Cost of Capital (WACC)WACC = {dxrd(1-Tax)} + (Exre)
- d. Level of Capital and Liabilities (D)

$$(D) = \frac{Total\ Liabilities}{Total\ of\ Liabilities\ and\ Equities} \times 100\%$$









- Cost Of Debt (rd) Cost of Debt (rd) =  $\frac{Interest\ Fee}{Liability\ Fee} \times 100\%$
- Tax Rate (Tax)  $Tax\ Rate\ (Tax) = \frac{Tax\ Expense}{Profit\ before\ tax} \times 100\%$
- Capital Level of Equity (E) Total Equity  $\times 100\%$  $(E) = \frac{}{Total \ Liabilities \ and \ Equity}$
- h. Cost Of Equity (re)  $(re) = \frac{Net\ Profit\ After\ Tax}{Total\ Equity} \times 100\%$
- Capital Charge (CC) CC) = Invested Capital x WACC
- Economic Value Added EVA = NOPAT - Capital Charges

From the EVA calculation, conclusions will be obtained with the interpretation of the results as follows:

- 1) If EVA > 0, this shows that economic added value is created for the company.
- 2) If EVA < 0, this shows the creation of economic added value for the company.
- 3) If EVA = 0, this indicates a break-even position because profits have been used to pay obligations to funders, both creditors and shareholders.

**Market Value Added (MVA).** The steps for calculating Market Value Added are as follows:

- a. Market Value
- Market Value = Shares Outstanding (Saham Beredar) x Stock Price (Harga Saham) b. Invested Capital
- Invested Capital = (Total Liabilities and Equity) Short-term liabilities
  - Market Value Added (MVA) Market Value Added = Market Value - Invested Capital (IC)
  - In this case, the measurement of Market Value Added is as follows:
  - 1) An MVA value > 0 or a positive MVA indicates that management has succeeded in providing added value through growth in the market capitalization value of issued shares or that the company can sell shares in the market at a premium price.
  - 2) MVA value = 0. Indicates that management has failed to provide added or reduced value through the growth of the market capitalization value of shares because the stock price on the market (stock price) is the same as the book value (equity per share).
  - MVA value < 0 or negative MVA Indicates that management is unable to provide added value through the growth of the market capitalization value of shares issued or the stock price in the market (stock price) is below the book value (equity per share).

#### **RESULT AND DISCUSSION**

The following are results of the research that has been analyzed as follows:



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**Cement Sub-Sector Company.** The following are 5 (five) companies that have met the criteria, namely: cement sub-sector companies listed on the Indonesia Stock Exchange (IDX) for the 2017-2021 period are as follows:

Table 1. Companies that are used as research samples

No	Company Code	Company name
1	SMGR	PT Semen Indonesia (Persero)Tbk
2	INTP	PT Indocement Tunggal Perkasa Tbk
3	SMBR	PT Semen Baturaja (Persero) Tbk
4	SMBC	PT Solusi Bangun Indonesia Tbk

Source: Data Processed 2022

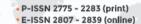
**Economic Value Added (EVA) Calculation Results.** The following calculation result of Economic Value Added (EVA) follows:

Table 2. Calculating Economic Value Added (EVA)

No	Company name	Year	NOPAT (Rp)	CC (Rp)	EVA (Rp)
1	PT. Semen Indonesia (Persero) Tbk	2017	5,396,961,000,000	13,287,474,090	5,383,673,525,910
		2018	6,213,922,000,000	587,935,434,600	5,625,986,565,400
		2019	8,636,934,000,000	970,388,862,000	7,666,545,138,000
		2020	8,472,017,000,000	899,591,959,400	7,572,425,040,600
		2021	7,610,827,000,000	71,153,370,192	7,539,673,629,808
	PT. Indocement Tunggal Perkasa Tbk	2017	4,580,544,000,000	7,090,398,000	4,573,453,602,000
		2018	4,114,709,000,000	7,142,619,000	4,107,566,381,000
2		2019	5,060,878,000,000	7,996,800,000	5,052,881,200,000
		2020	4,772,009,000,000	5,901,336,000	4,766,107,664,000
		2021	4,680,776,000,000	6,593,187,000	4,674,182,813,000
3	PT. Semen Baturaja Tbk	2017	339,728,701,278	794,916,955	338,933,784,323
		2018	403,215,718,012	1,720,486,521	401,495,231,491
		2019	406,723,501,590	306,164,640	406,417,336,950
		2020	416,408,514,071	298,108,257	416,110,405,814
		2021	446,359,463,141	432,915,137,811	13,444,325,330
4	PT. Solusi Bangun Indonesia Tbk	2017	124,320,810,000	1,637,784,000	122,683,026,000
		2018	108,133,712,000	6,856,252,416	101,277,459,584
		2019	177,808,158,000	7,212,168,228	170,595,989,772
		2020	247,813,474,000	14,404,078,162	233,409,395,838
		2021	239,662,754,000	2,681,047,026	236,981,706,974

Source: Data Processed 2022

From the results of calculations and analysis in general, it can be seen that PT Semen Indonesia (Persero) Tbk has an EVA value that is always positive even though it has decreased in value, where in 2017, the EVA value was IDR 5,383,673,529,910. Then in 2018, the EVA value increased by Rp. 5,625,986,565,400, again increasing in 2019 by Rp. 7,666,545,138,000. In 2020-2021, the EVA value decreased by IDR 7,572,425,040 and IDR 7,573,453,602 in 2021.







PT Indocement Tunggal Perkasa Tbk had an EVA value of IDR 4,573,453,602,000 in 2017, and in 2018 it decreased by IDR 4,107,566,381 but remained positive, where in 2019, the EVA value increased by IDR 5,052,881,200,000 and in 2020 the EVA value has decreased by IDR 4,766,107,664,000. However, in 2021 the value of EVA will also decrease by IDR 4,674,182,813,000, which is positive.

The EVA value at PT Semen Baturaja has increased from 2017-2020, where in 2017, the EVA value was Rp. 338,933,784,323 and Rp. 401,495,231,491 in 2019. In 2020 the EVA value was Rp. 406,417,336,950 and Rp. 416,110,405,814 in positive value. However, in 2021 the value of EVA will decrease by IDR 13,444,325,330, which is negative.

PT Solusi Bangun Indonesia Tbk has an EVA value that is always positive even though it has decreased in value, whereas in 2017, the EVA value was IDR 122,683,026,000. Then in 2018, the EVA value decreased by IDR 101,277,459,584, and again 82 experienced an increase in 2019-2021. In 2019 the EVA value was IDR 170,595,989,772, and IDR 233,409,395,838 in 2020, and in 2021 the EVA value was 236,981,706,974.

**Market Value Added (MVA) Calculation Results.** The following is the result of calculating Market Value Added (MVA) from the following:

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No	Company Name	Year	Company Value (Rp)	IC (Rp)	MVA (Rp)			
1	PT. Semen Indonesia (Persero) Tbk	2017	65,839,872,000	40,265,073,000	25,574,799,000			
		2018	71,326,528,000	42,604,017,000	28,722,511,000			
		2019	79,037,504,000	65,566,815,000	13,470,689,000			
		2020	71,326,528,000	64,718,846,000	6,607,682,000			
		2021	75,033,728,000	56,471,192,000	18,562,536,000			
2	PT. Indocement Tunggal Perkasa Tbk	2017	20,471,201,625	2,421,700,000	18,049,501,625			
		2018	17,837,609,855	2,357,300,000	15,480,309,855			
		2019	77,397,896,471	23,800,000,000	53,597,896,471			
		2020	57,059,091,334	23,418,000,000	33,641,091,334			
		2021	45,970,053,732	22,657,000,000	23,313,053,732			
3	PT. Semen Baturaja Tbk	2017	37,714,229,675	4,392,055,000	33,322,174,675			
		2018	26,598,456,718	4,901,671,000	21,696,785,718			
		2019	69,473,580,981	5,102,744,000	64,370,836,981			
		2020	13,607,572,040	4,887,037,000	8,720,535,040			
		2021	85,419,795,289	5,344,631,331	80,075,163,958			
4 2020	PT. Solusi Bangun Indonesia Tbk 2	2017	54,007,560,000	14,241,600,000	39,765,960,000			
		2018	24,891,993,000	8,927,412,000	15,964,581,000			
		2019	30,134,250,000	19,387,549,000	10,746,701,000			
		2020	12,786,420,000	2,040,237,700	10,746,182,300			
		2021	27,666,045,000	21,278,151,000	6,387,894,000			

Table 3. Calculating Market Value Added (MVA)

From the results of calculations and analysis in general, it can be seen that PT Semen Indonesia (Persero) Tbk has a positive MVA value even though it has decreased in value. In contrast, in 2017, the MVA value was IDR 25,574,799,000. It increased in 2018 to IDR 28,722,511,000. In 2019 - 2020 the MVA value decreased by IDR 13,470,689,000 in 2019 and IDR 6,607,682,000 in 2020. However, in 2021 the MVA value has increased by IDR 18,562,536,000. So the MVA value at PT cement Indonesia (Persero) Tbk in 2017-2021 is positive, meaning that management has succeeded in providing added value through growth in the market capitalization value of issued shares, or the company can sell shares on the market.

The MVA value at PT Indocement Tunggal Perkasa Tbk in 2017 was IDR 18,049,501,625, and the MVA value decreased at MVA = Corporate Value - IC 88 in 2018 of IDR 15,480,309,855 which is positive. In 2019 the MVA value increased by IDR 53,97,896,471. However, the MVA value decreased in 2020-2021 by IDR 33,641,091,334 in 2020 and IDR 23,313,053,732 in 2021.

At PT Semen Baturaja Tbk, the MVA value in 2017 was IDR 33,322,174,675, whereas in 2018, the MVA value decreased by IDR 21,696,785,718, which is positive. In 2019 the MVA value increased by IDR 64,370,836,981 and again experienced a decrease in EVA value in 2020 of IDR 8,720,535,040. However, in 2021 the MVA value will increase by IDR 80,075,163,958, which is positive.

PT Solusi Bangun Indonesia yang mempunyai nilai MVA selalu bernilai positif, dimana pada tahun 2017 sebesar Rp 80,075,163,958 dan mengalami penurunan nilai MVA pada tahun 2018 – 2021 sebesar Rp 39,765,960,000 pada tahun 2018 dan sebesar Rp 15,964,581,000 pada tahun 2019. Pada tahun 2020 nilai MVA mengalami penurunan sebesar Rp 10,746,701,000 dan sebesar Rp 10,746,182,000 pada tahun 2020. Pada tahun 2021 nilai MVA sebesar Rp 6,387,894,000.

## 1. Results of the Relationship between Economic Value Added and Market Value Added

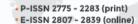
The relationship between the EVA and MVA methods in Cement Sub Sector companies in 2017-2021. There is a relationship between the EVA and MVA Methods at PT Semen Indonesia (Persero) Tbk and PT Indocement Tunggal Perkasa Tbk in 2017-2021, indicating an EVA value > 0 means it is positive. An MVA value > 0 is also positive, so there is the added value for companies that generally increases the company's stock price so that the stock return will increase or the company succeeds in creating added value for investors. At PT Semen Baturaja Tbk in the 2017-2020 period, the relationship between the Economic Value Added Method and the Market Value Added showed a positive value, meaning that in that period, the EVA value > 0 and the MVA value in 2017-2020 showed an MVA value > 0 meaning that the EVA 96 value was worth positive, it indicates that there is the added value for the company which is generally responded to by an increase in the company's stock price so that the stock return will increase or succeed in creating added value for investors. Whereas in 2021, it shows a negative EVA value, meaning that the EVA value is < 0, but in the calculation of Market Value Added in 2021, it shows an MVA value > 0, meaning it is positive. It could happen as long as investors expect a change in direction in the future.

At PT Solusi Bangun Indonesia Tbk in the 2017-2021 period, it shows an EVA value > 0, meaning it is positive, and an MVA value > 0 means it is positive in that period. Then the relationship between the Economic Value Added Method and the Market Value Added, there is an added value for the company, which generally increases the stock price so that the stock return will increase or the company succeeds in creating added value for investors.

### **CONCLUSION**

Based on the results of the research and discussion above, the following conclusions are obtained:

1. Economic Value Added (EVA) at PT Semen Indonesia (Persero) Tbk has a good EVA value starting in 2017-2021 is positive. PT Indocement Tunggal Perkasa Tbk shows an EVA value > 0, meaning that the company is in good condition and can create added value for the company. PT Semen Baturaja Tbk had a positive value in 2017-2020, indicating an EVA value > 0, and in 2021 an EVA value < 0 means the company is in a bad situation, so the company is not able to provide added value for a certain year. The negative EVA is because the CC value is greater than the NOPAT value. In addition, EVA has a negative value due to the temporary delay of several projects at the company due to Covid-19. PT







- Solusi Bangun Indonesia Tbk has a good EVA value from 2017-2021, which shows an EVA value > 0, meaning the company is in good condition.
- 2. Market Value Added (MVA) at PT Semen Indonesia (Persero) Tbk, PT Indocement Tunggal Perkasa Tbk, PT Semen Baturaja Tbk and PT Solusi Bangun Indonesia Tbk is positive starting from 2017-98 2021. If the MVA value is positive, then it reflects the company's success in increasing the prosperity of its owners (shareholders/investors). If the MVA value > 0 or positive MVA indicates that the company has succeeded in providing added value through the growth of the market capitalization value of the issued shares or the company can sell shares on the market.

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