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## **FINANCIAL PERFORMANCE ANALYSIS OF SOE AND FOREIGN CAPITAL CEMENT COMPANIES IN INDONESIA**

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### **Abstract**

*In order to achieve the Master Plan for the Acceleration and Expansion of the Indonesian Economic Development (MP3EI) program that has a significant impact on cement demand outside java, it is necessary to improve the performance of cement companies, especially state-owned (SOE) and Foreign Investment (PMA) cement companies in Indonesia. Their performance are analyzed along with the selection of independent variables in the discrimination function as a variable that explains precisely the performance of the company based on the Discriminant Stepwise Method. This research is analyzed by Du Pont System Analysis where both SOE and PMA have a good value of the performance; Financial Ratios where all of the companies have positive value with different trends; The Decree of the Minister of Finance of the Republic of Indonesia No. 826/KMK.013/1992 indicating that healthy company performance only owned by Semen Batu Raja and Indocement; Decree of the Minister of BUMN No: KEP-100/MBU/2002 in financial aspects having AA predicate healthy companies owned by Semen Indonesia,*

*Indocement, and Siam Cement while the rest are having below AA grade; Economic Value Added (EVA) having no economic value by Semen Batu Raja and Ultratech while the other have positive EVA; Tobin's q indicating that only Holcim and Anhui Conch companies having average value while the others having overvalued; and Altman Z-Score of SOE and PMA having value above 2.9 explaining the companies do not have the bankrupt condition. Meanwhile the data of those analysis is in the period 2013-2016.*

### **Keywords**

Du Pont System Analysis, Financial Ratio Analysis, Economic Value Added (EVA), Tobin's q, Altman Z-Score, and Discriminant Stepwise Method

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## **1. Introduction**

Industrial growth in Indonesia by the following semester could have better result as the implementation of various economic policy packages issued by the government. Relating to the policy issued by the government, Indonesia is currently one of the investment destination countries due to positive economic growth rates, according to President Joko Widodo's presentation, that Indonesia's economic growth is one of the highest in Asia. The Director General of the Manufacturing Industry Base of the Ministry of Industry said that the government had designed the implementation of the Master Plan for the Acceleration and Expansion of Indonesian Economic Development (MP3EI) program for the period 2011-2025 which would have an impact on substantial cement demand outside Java. To anticipate this condition, the performance of the cement industry needs to be encouraged to ensure the availability of cement supply in the country, especially outside Java. The government will provide support for investment in the cement industry and provide incentives for construction activities in a number of areas, especially in eastern Indonesia (Bisnis Indonesia, 2017).

The impact of positive industrial growth and the implementation of MP3EI to the investment in the industrial sector of state-owned enterprise is very necessary. In order to attract investors, state-owned cement companies consisting of PT. Semen Indonesia Tbk (Persero) and PT. Semen Baturaja (Persero) need to show their performance. The state-owned cement company is a company that goes public that can obtain new source of capital through investors. The need for competitive advantage for business development, financing, increasing the going concern capabilities, improving corporate image, and corporate value are in order to fulfill the competitive advantage. A healthy condition is needed in maintaining and increasing investor

loyalty and trust. Those conditions are reflected in the company's performance (Umiyati dan Faly, Q.P, 2015).

One of the measurement instrument used to analyze financial statement is *Du Pont System*. The Du Pont System analysis is comprehensive, because it includes the efficiency of the company in the use of assets and can measure the level of profit on the sale of products produced by the company (Suryajaya, G.D and Trenggana, A.F.M, 2015). Also, it can see the effectiveness and efficiency of the company in using assets and creating company operational activities (David Lianto, 2013). The measurement tool that is often used for the financial statement analysis is the financial ratio (Mamik Mardiani, et al, 2013). Meanwhile the Measurements used are liquidity, solvency, and profitability ratios (Putu Sulastrri dan Hapsari, N.M, 2015).

The research of Putu Sulastrri and Hapsari, N.M, (2015) shows that PT. Andalan Finance Indonesia in the period 2011-2013 identified that the liquidity ratio in 2011 was better than the other period having resulted 126%, the solvency ratio in the period 2012-2013 was better in 2011 from the total debt to asset ratio by 92% (2012) and 88% (2013). While the profitability ratio has decreased from the 2011-2013 period, it can be seen from the significant decrease in ROE. The activity ratio for the period 2011 is better than the period after. In other words, the overall financial performance of PT. Andalan Finance Indonesia is better in 2011.

Haryati, C.S (2015) research's the financial performance of PT Telekomunikasi Indonesia, Tbk, PT Indosat Tbk, and PT Smartfren Telekom Tbk do not always experience an increase in each period of 2010-2014 in terms of liquidity, solvency and profitability ratios. Whereas to measure how effective the company is in using this funding sources, companies can measure it using activity ratios (Putu Sulastrri and Hapsari, NM, 2015), (Ulin Ni'mah, 2011), (Ninik Lukiana, 2013), (Dodi Andrie, 2009), (Silvi Junita and Siti Khairani, 2013), (Umi Barokah, 2014), (Yuli Orniati, 2009). The level of leverage shows how much total debt the company has or in other words, the extent to which the company's ability to meet its long-term and short-term liabilities (Indra Hariadi, et al, 2013).

The research by Indra Hariadi, et al. (2013) shows that the financial performance of PT Trikonsel Oke, Tbk in the period of 2009-2011 was seen from the liquidity, leverage, activity, profitability and market ratios which showed a fairly good number, while PT. Matahari Departement Store, Tbk on the same period shows quite good numbers with fluctuating conditions. Market ratio (Adira Kusumadiyanto, 2006) shows market prices relative to book values and profitability ratios (Manafe, P.H., 2015). In Manafe P.H., (2015) research shows that

profitability ratios in the Regional Water Supply Company (PDAM) of Pasuruan Regency experienced a decrease in ROE, while ROI experienced an increase from the number of subscribers.

The performance of state-owned enterprises is also stated in the Decree of the Minister of Finance of the Republic of Indonesia No. 826/KMK. 013/1992 as a guideline for the analysis method of evaluating the financial soundness of state-owned companies in the form of profitability, liquidity, solvency and other additional indicators (Suhartono, F.A, 2000). Also through the Decree of the Minister of SOE Companies (BUMN) No: KEP-100/MBU/2002 giving the performance of state-owned companies in financial aspects such as ROE, ROI, Cash Ratio, Current Ratio, Collection Periods, Inventory Turnover, TATO (Total Assets Turnover), and TMS (Total Capital Alone) towards TA (Total Assets) (Erni Agustin, 2016), (Reza Prayoga, 2014), (Aryati, G.R, 2014), (Komar Benyamin, 2008). The research of Komar Benyamin, (2008), gives the conclusion that in infrastructure companies from period 1997-2006 on profitability, infrastructure companies were better than non-infrastructure companies. As well as the results of regression test where there are significant differences between infrastructure ROI and non-infrastructure ROI with the most significant variables being debt, equity and sales.

Measurement of financial performance by using financial ratios still has weaknesses. It has not calculating the cost of capital for equity in its calculations. So it ignores the interest of shareholders. To overcome the weaknesses of ratio analysis, a better method is needed by including the component of capital or equity costs, namely the method of *Economic Value Added* (EVA) (Sucipta, I.K.A, et al, 2015), (Mamik Mardiani, et al, 2013), (Risky Fidianti, 2011), (Rizki, P.A, 2009), (Santoso, Y. W., 2015). A high EVA value will attract investors, which is the greater the EVA, the higher the value of company that the company has the greater profit enjoyed by shareholders (Muthia Sari, 2015). Positive EVA indicates that the resulting rate of return exceeds the level of capital costs or the rate of return requested by the capital owner, both foreign capital and own capital. Conversely EVA which is negative indicates that the value of the company decreases due to the resulting return rate lower than the rate of return requested by investors. Rizki, P.A, (2009) research provided results that PT. Indosat Tbk in the period 2004-2008 using the EVA method is more accurate than ROE.

Another measurement in measuring company performance is Tobin's q which can be used to measure company performance in terms of potential market value of a company and investment growth potential. Also Altman Z-Score is used to measure the potential for

bankruptcy or a company with 5 elements of ratio, namely working capital to total assets, retained earnings to total assets, earnings before tax and total assets, market value to book total liabilities, and total revenue to total assets (Bambang Sudiyanto dan Elen Puspitasari, 2010), (Martinus Ristardi, 2008). Based on Sukhemi (2005) research, it was concluded that the Altman model could be used to identify the bankruptcy of companies in the industry Textile Mill Product with the causes of the increase in fuel and electricity remaining except for one company affected by the delisting company which is PT. Textile Manufacturing Company Jaya (TEXMACO).

Thus, this research aims are to determine the performance of SOE and foreign investment of cement companies based on du pont analysis, financial ratio analysis, Decree of the Minister of Finance of the Republic of Indonesia No.826/KMK.013/1992, Decree of the SOE Minister No: KEP-100/MBU/2002 in finance aspects, Analysis of Economic Value Added (EVA), Tobin's q Analysis, and Altman Z-Score Analysis. Those the analysis are also tested using Discriminant Stepwise Method in order to determine the strong correlation of independent variable from those analyses to the performance of SOE and foreign investment (PMA) cement companies in Indonesia.

## **2. Literature Review and Formulation of Hypotheses**

### **2.1 Performance**

Performance assessment is the determination of the effectiveness of operations, organizations and employees based on targets, standards and criteria that have been previously set periodically. Financial performance is assessed by evaluating the company's financial statements at certain times and periods. To find out the company's financial performance, it is generally necessary to analyze the financial statements which include comparing the performance of the company with other companies in the same industry, and evaluating the trends in the company's financial position over time. The purpose of analyzing company performance is to improve the quality of policies, evaluate information related to financial conditions, management, plans and strategies, as well as the company's business environment (Tulis, S.M, et al, 2011).

Financial performance can be assessed by several technical analysis tools that can be divided into: 1) financial statement comparison analysis, 2) trend analysis, 3) percentage-per-component analysis, 4) source analysis and use of working capital, 5) analysis of sources and uses of cash, 6) financial ratio analysis, 7) analysis of changes in gross profit, 8) break even

analysis. These are also measuring instruments used by Hansen Downen, namely return on investment (ROI), residual income, and Economic Value Added (Lutfi, D.A., 2013).

The financial performance should be analyzed to see the extent to which a company has implemented the rules of financial implementation properly. Good and bad financial condition of a company reflects work performance in that period (Agung, G, 2012), so it can attract investors to invest in the company which in this study is a state-owned cement company. To find out the purpose of measuring the company's financial performance, it can be use financial statement analysis methods and techniques. The method that can be used is horizontal and vertical analysis methods, and financial statement analysis techniques that can be used in the form of comparative financial statement analysis, common-size, ratio, cash flow, intrinsic value of the company or stock.

Based on several analysis techniques, financial ratio analysis is the most popular and widely used financial analysis tool (Winarsa, E.A., 2010). According to munawir (2002) ratio analysis consists of liquidity, solvency, profitability, activity, and market ratios (Ulin Ni'mah, 2011). Whereas the decision of the minister of state for cooperatives and small and medium enterprises of the Republic of Indonesia No. 96/Kep/M.KUKM/IX/2004 concerning the assessment of financial performance including liquidity ratios, solvability, and profitability (Ulin Ni'mah, 2011).

## **2.2 Financial Ratio Analysis**

Five groups of financial ratios are often used, namely the ratio of liquidity, solvency, activity, growth, and profitability (Haryanti, C.S, 2015). Based on the activity ratio, it can be seen that the company has an increase in the value of the ratio by maximizing the use of total assets. Based on profitability ratios, companies experience an increase in value from year to year. Broadly speaking, through ratio analysis, the company has increased. Whereas research (Silvi Junita dan Siti Khairani, 2013) (Agustinus Ribo, 2013) also uses four financial ratios to telecommunications companies listed on the IDX. The liquidity ratio is used to determine the company's ability to finance operations and financial liabilities at maturity. The liquidity ratio is to analyze credit (risk) consisting of the quick ratio, current ratio, and cash ratio (Haryanti, C.S, 2015) and the working capital to total assets ratio (Utami, N.S, 2016), the current ratio shows the extent to which current assets cover smooth liability. If there is a low current ratio, it identifies that there is a problem in liquidation, and vice versa, if it is too high indicates the amount of funds that are unemployed and result in reduced ability to profit the company (Utami, N.S,

2016).

Cash ratio shows the relative value of the value of cash against current debt or how much cash or cash equivalent the company can actually use to fulfill its obligations in the short term. Quick ratio is used to measure the ability of a company to fulfill its short-term obligations. The greater the ratio, the better the condition of the company. Working capital to total assets ratio is the ratio used to measure the liquidity of total assets and the position of net working capital from the total assets, or in other words is the ability of the company to guarantee its working capital against assets. The higher the ratio, the greater the portion of working capital the company has from its total assets (Utami, N.S, 2016), (Ninik Lukiana, 2013), (Lutfi, D.A., 2013).

Activity ratios are used to determine the company's ability to carry out daily company activities or the ability to sell, collect receivables and utilize assets owned. The activity ratio consists of total asset turnover (TATO), receivable turnover, average collection period, inventory turnover (ITO), average day's inventory, and working capital turnover. Total assets turnover is a ratio that shows the level of efficiency of the overall use of assets in generating sales volume. The greater the ratio, the better the assets of the company where assets quickly spin and profit and efficient use of overall assets in sales. Receivable turnover is used to see the position of accounts receivable and the estimated time of collection can be assessed by calculating the turnover rate of account receivable by dividing the total credit sales by the average receivable.

The average collection period is used to measure the processing efficiency of a company's receivables and shows how long it will take to pay off accounts or change accounts receivable into cash. Inventory turnover shows the ability of funds embedded in inventory to spin in a certain period or liquidity from inventory and tendencies for overstock. Average day inventory is used to measure the period of average merchandise inventory in the company's warehouse. Working capital turnover is the ability of working capital (net) to spin in a period of the cash cycle of the company (Utami, N.S, 2016), (Naimatul Musahadah, 2015), (Ninik Lukiana, 2013), (Lutfi, D.A., 2013).

Profitability ratio is a ratio used to determine the ability of a company to obtain profits from various policies and decisions that have been taken. This ratio consists of the ratio of profit margin, return on Assets (ROA), Return on Equity (ROE) (Haryanti, C.S, 2015), gross profit margin, operating income ratio, and net profit margin (Utami, N.S, 2016). Gross profit margin is a ratio that measures the efficiency of controlling basic prices or production costs to determine the company's ability to produce efficiently. The greater the value of the gross profit margin, the

better the operation condition of the company and vice versa, the lower the value of the gross profit margin, the less operational the company is. Operating profit margin is a ratio that describes pure profit for each rupiah from sales made. The higher the operating profit margin, the better the operation of a company. Net profit margin is used to measure net income after tax on sales, the higher the net profit margin, the better the operation of a company.

Return on Assets (ROA) is a ratio used to measure the effectiveness of a company in utilizing all resources that show the economic profitability of a company. Return on Investment (ROI) is a ratio used to measure a company's overall ability to generate profits with the total assets available within the company. The higher the ratio, the better the condition of a company. Return on Equity (ROE) is a measurement of income available to company owners (both ordinary shareholders and preferred shareholders) of the capital invested in the company. The higher the ROE identifies that the return on investment is higher. The higher the ROE number can attract shareholders to invest in the company (Utami, N.S, 2016), (Naimatul Musahadah, 2015), (Lutfi, D.A., 2013).

While the solvency ratio or leverage ratio is the ratio used to measure how far the company's assets are financed by debt or the company's ability to pay long-term debt (Tulis, S.M, et al, 2011). This ratio consists of total debt to equity ratio, total debt to total capital assets (Haryanti, C.S, 2015), long term debt to equity ratio, tangible assets debt coverage, and times interest earned ratio (Utami, N.S, 2016). The total debt to equity ratio (DER) is used to measure the share of equity that is used as collateral for overall liabilities or debt. The higher the DER number identifies that the company has a higher risk of company liquidity. Debt to total assets ratio (DAR) is used to measure how much the company's assets are financed by total debt.

The higher the DAR ratio, the greater the amount of loan capital used to invest in assets to generate profits for the company. Long-term debt to equity ratio is the ratio used to see how much proportion of corporate capital is spent by long-term debt. The greater the ratio, the greater the risk of the company in paying off its long-term debt. Tangible debt coverage assets are used to measure the amount of tangible fixed assets used to guarantee long-term debt. Time interest earned ratio or coverage ratio is a ratio used to measure the ability to meet annual interest liabilities with operating profit (EBIT) and measure the extent to which operating profit may decrease without causing failure of fulfilling the loan interest payment obligations (Utami, N.S, 2016), (Naimatul Musahadah, 2015), (Ninik Lukiana, 2013), (Lutfi, D.A., 2013).

Valuation analysis is used to estimate the intrinsic value of a company (stock) or called



the market ratio (Ulin Ni'mah, 2011), (Ninik Lukiana, 2013), which uses growth ratios and valuation ratios. The growth ratio is used to describe the company's ability to maintain its economic growth and business sector. The valuation ratio provides a measure of management's ability to create market value for its business above its investment costs. The valuation ratio consists of price earnings ratio and market to book value. The higher the price earnings ratio (PER), the greater investor confidence in the company's future. Likewise, the lower the book to market ratio, the higher the company is valued by investors (Utami, N.S, 2016), (Christina, N.P.Y, dan Sudana, I.P, 2013).

The efficiency ratio is the rotation rate ratio that can measure how productive the company uses its assets (Winarsa, E.A., 2010), (Suryajaya, G.D, dan Trenggana A.F.M, 2015). Based on Bank Indonesia Circular Number 3/30DPNP, the efficiency ratio can be used to measure management in controlling operational costs against operating income (Nurlela, et al, 2012). The smaller the ratio, the more efficient the operational costs incurred by the institution or company (Nurlela, et al, 2012). In the Nurlela et al (2012) research, the performance of Islamic banking has an average greater than the average performance of foreign banks. This shows that in the 2004-2008 period, overall performance derived from CAR, NPL, ROA, ROE, BOPO and LDR was better than foreign banks. Fixed Asset Turnover is used to see the comparison between operating income and fixed assets. The return on Fixed Assets is used for the comparison between surplus or deficit before the post of profit or loss (Agung, G, 2012).

**H1:** Financial Ratio Analysis has an effect on the Performance of Cement Companies of State-Owned Enterprises and Foreign Capital Companies in Indonesia.

### **2.3 Decree of the Minister of Finance of the Republic of Indonesia No.826/KMK.013/1992**

The finance minister has made a guideline to measure the level of financial health of the company listed in the Decree of the Minister of Finance of the Republic of Indonesia Number 740/1989 on Rosyati research (2004) by analyzing liquidity, solvency and profitability towards PT. Indofood Sukses Makmur resulting in sound financial performance with the results of the company's liquidity position are considered good in completing short-term liabilities even though the fastest liquidity tool to pay off current debt is unsatisfactory due to rising and falling fluctuations, this is due to the rise and fall of the Indonesian economy. In the position of solvency, the level of debt repayment is not good and the level of dependence on creditors is high, and the position of the company's profitability in the use of financial resources over a six-year period is very good with evidence of good returns.

The decree was updated with the Decree of the Minister of Finance of the Republic of Indonesia No.826/KMK.013/1992 concerning the evaluation of the performance of SOEs based on profitability, liquidity, solvency and additional indicators from year to year at the general meeting of shareholders in accordance with the company's development. The main indicator weighs 70%, and additional indicators weigh 30% (Suhartono, F.A, 2000). Which results from the research of Suhartono, F.A, (2000) at PT. The Clothing Industry II Unit Patal Secang for the period 1994-1998 showed a declining trend at the level of health of the company in terms of the calculation of the company's financial performance based on the Decree of the Minister of Finance of the Republic of Indonesia.

**H2:** Analysis of Minister of Finance of Republic of Indonesia No.826/KMK.013/1992 has an effect on the Performance of Cement Companies of State-Owned Enterprises and Foreign Capital Companies in Indonesia.

#### **2.4 Decree of the Minister of State Owned Enterprises No: Kep-100/MBU/2002**

In the analysis of this ratio is used as an assessment of SOE financial performance in accordance with the Decree of the Minister of State-Owned Enterprises Number: Kep-100/MBU/2002 regarding the assessment of the soundness of state-owned enterprises as follows: 1) Return on Equity, 2) Return on Investment, 3) Cash Ratio, 4) Current Ratio, 5) Collection Periods, 6) Inventory Turnover, 7) Total Asset Turnover or Total Asset Turnover, 8) Total own capital ratio to total assets or Total own capital (Winarsa, E.A., 2010).

**H3:** Analysis of Decree of the Minister of SOE No: Kep-100/MBU/2002 has an effect on the Performance of Cement Companies of State-Owned Enterprises and Foreign Capital Companies in Indonesia

#### **2.5 Du Pont System Analysis**

Analysis of Du Pont System is an analysis used to dissect company financial statements and assess the company's financial condition. This analysis combines the income statement and balance sheet in two summary profitability, namely Return on Assets (ROA) and Return on Equity (ROE). Du Pont System describes these two ratios with other ratios, namely Net Profit Margin (NPM), Total Assets Turnover (TATO) and Financial Leverage Multiplier (FLM) (Suryajaya, G.D, dan Trenggana A.F.M, 2015). Nuraini, et al, (2015) research on the performance of cosmetics and household needs experienced a drastic decline in ROI with the du pont system approach in the period 2011-2013 due to company expenses, increased HPP and ineffective use of assets, as well as company performance in the analysis of residual income

which results in positive and negative results, the positive results indicate that the company is not burdened with high capital costs and the company that has the highest positive value is PT. Unilever Indonesia, Tbk. in the 2015 suryajaya, G.D, and Trenggana A.F.M Studies, the average ROE in the banking industry that went public was 11% and there were 20 banking companies that performed very well with the highest to lowest ROE value, where PT. Bank Rakyat Indonesia (Persero) Tbk has the highest ROE value of 27%.

**H4:** Du Pont System Analysis has an effect on the Performance of Cement Companies of State-Owned Enterprises and Foreign Capital Companies in Indonesia.

## **2.6 Economic Value Added (EVA) Analysis**

The analytical method of Economic Value Added (EVA) provides quite objective parameters because EVA analysis is based on the concept of capital costs where the cost of capital reflects the level of risk of the company and the level of compensation or return investors expect for a number of investments invested in the company (Rachma Zannati dan Wardoyo, D.U, 2016). EVA can align management objectives and shareholder interest, which EVA reflects the company's success in creating added value for shareholders or investors (Sucipta, I.K.A, et al, 2015). EVA also provides guidance for management to increase operating profit without additional funds or capital by exposing loans (receivables) and providing high return to investors. EVA itself is net income (operating profit minus tax) minus total annual capital costs. If EVA is positive, the company is creating wealth, whereas it is negative, the company is wasting capital (Mamik Mardiani, et al, 2013).

In other terms, if  $EVA > 0$ , the company has a value added process or good financial performance. If  $EVA = 0$ , this indicates the company's break-even position. If  $EVA < 0$ , it means that the total cost of the company's capital is greater than the operating profit after the tax obtained, so the company's financial performance is not good (Adira Kusumadiyanto, 2006), (Risky Fidianti, 2011). The EVA value approach combines all information about the company, namely sales and market share growth, customer satisfaction, supplier relations, labor productivity and labor relations, taxes, interest and payment of principal debt to lenders, reputation with banks and other borrowers. This shows a realistic value of profitability from the company's operations (Risky Fidianti, 2011).

**H5:** Economic Value Added (EVA) Analysis has an effect on the Performance of Cement Companies of State-Owned Enterprises and Foreign Capital Companies in Indonesia.

## **2.7 Tobin's q Analysis**

Tobin's q is an important indicator in measuring company performance especially in company values that shows a management performance in managing company assets. Tobin's q also describes the conditions of investment opportunities that the company has or the potential for growth of the company (Bambang Sudiyanto dan Elen Puspitasari, 2010). Tobin's q has been used by companies to explain various corporate phenomena. The use of Tobin's q identifies cross sectional differences in investment and diversification decisions, the relationship between managerial ownership and firm value, the relationship between managerial performance and the benefits of tender offers and opportunities for investment, financing, dividends, and investment policies. Tobin's q is the ratio between the market value of a company's assets and the value of asset replacement (Astrini, S. F, et al, 2015). Tobin's q includes all company assets which are not only focused on one type of investor. So the greater the value of Tobin's q indicates that the company has a good prospect of growth, because the greater the market value of the company's assets compared to the book value of assets affects investors in maintaining ownership in the company.

**H6:** Tobin's q analysis has an effect on the Performance of Cement Companies of State-Owned Enterprises and Foreign Capital Companies in Indonesia.

## **2.8 Altman Z-Score Analysis**

Altman Z-score is an indicator used to measure the potential bankruptcy of a company. This value is obtained from the sum of the multiplication results of a constant value with 5 elements of ratio, namely working capital to total assets, retained earnings to total assets, market value to book value of total debt, and total revenue to total assets. This ratio illustrates management's ability to manage assets. Companies with a score below 1.2 will experience bankruptcy, while a score above 2.9 is considered safe, and a value between 1.2 and 2.9 is included in the gray area (Bambang Sudiyanto and Elen Puspitasari, 2010)

**H7:** Altman Z-Score Analysis has an effect on the Performance of Cement Companies of State-Owned Enterprises and Foreign Capital Companies in Indonesia.

### **3. Research Methods**

#### **3.1 Sample Populations**

The population in this research is that all the Cement Companies of State-Owned Enterprises and Foreign Capital Companies listed on the Indonesia Stock Exchange during the 2013-2016 period where 7 companies are selected. One of the main criteria for selecting a company used in this research was the state-owned cement company and foreign capital companies which had been included in the category of suspect companies during the observation period. In addition, the sample selection criteria in this study included: 1) cement companies listed on the IDX and publish audited financial statement consistently and completely during 2013-2016 observation period, 2) companies have been included in the suspect company category during 2013-2016 observation period, and 3) complete financial statements present all data needed.

#### **3.2 Analysis Model**

This research uses an analytical method with a type of quantitative research along with the Discriminant Stepwise Method, which performs calculations that are relevant to the research problem formulated, describes in more detail a phenomenon or phenomenon and obtains an understanding of the topic under study analysis by collecting, processing, analyzing and interpret the data, describe the situation and make conclusions (Tulis, S.M, et al, 2011) along with the selection of the appropriate independent variables and enter in the discriminant function. The data used in this study are secondary data from state-owned cement companies namely PT. Semen Indonesia (Persero) Tbk and PT. Semen Baturaja (Persero) and cement foreign capital companies listed on the Indonesia Stock Exchange from 2013-2016 period.

This research using an analytical tool in the form of financial ratio analysis, namely liquidity ratio, solvency, profitability, activity, leverage, market, Decree of the Minister of Finance of Republic of Indonesia No. 826/KMK.013/1992, the Ministry of SOE Decree No: KEP-100/MBU/2002, Economic Value Added (EVA), Tobin's q, Altman Z-Score and Discriminant Stepwise Method. In the Discriminant Stepwise Method, as the selection of the best independent variables in explaining the performance of the company, using the value of partial F and Wilk's Lambda as the basis for selecting these variables. If the value of Wilk's Lambda approaches 1 indicates the performance of the company is good and vice versa, with a range of values from 0 to 1 (Isti Fadah, et al, 2005).

## 4. Result and Discussion

### 4.1 SOE Cement Company Performance and Cement PMA Based on Du Pont System Analysis and its influence in the discrimination function

In the performance of state-owned cement companies and foreign capital companies can be measured through du pont system analysis which in this research is translated into ratios of *Return on Assets (ROA)*, *Return on Equity (ROE)*, *Net Profit Margin (NPM)*, *Total Assets Turnover (TATO)*, and *Financial Leverage Multiplier (FLM)*, (Suryajaya, G.D, dan Trenggana A.F.M, 2015).

Du pont system ratio consisting of 5 ratios in the form of ROE, ROA, NPM, TATO, and FLM. The five ratios as the variables can be chosen which have a significant role in the performance of state-owned cement companies and foreign capital companies based on discriminant stepwise method uses Lambda's partial F and Wilks' values as the basis for having the independent variables included in the discriminant function. The wilk's lambda number has the range from 0 to 1, the closer to number 1, the ratio to the company indicates that it performs well and the reverse indicates that it is not good. The results obtained from these 5 ratios as independent variables in the discrimination function have 1 ratio which is TATO that becomes the best variables to indicates the performance of the company. This is in accordance with the table below.

**Table 1:** Variable based on Discriminant Stepwise Method from Du Pont System

Variables	Wilks' Lambda	F	Sig.
<b>TATO</b>	<b>,999</b>	<b>,007</b>	<b>,939</b>

Source: Data processed

Based on the table above, it can be concluded that the proposed hypothesis is proven to be true where the ratio of the du pont system can be used to classify good and bad performers whose dominant ratio having the highest value of wilks' lambda is TATO.

### 4.2 The performance of SOE cement company and cement foreign capital companies on the financial ratio analysis and its effect in the discrimination function

The performance of SOE cement companies and FCC companies can be measured through financial ration analysis described in the ratio of liquidity, solvency, profitability, activity, and growth (Utami, N.S, 2016).

The analysis ratio consisting of 22 ratios in the form of current ratio, cash ratio, quick ratio, TATO, RTO, ACP, ITO, ADI, WCTO, GPM, OIR, NPM, ROA, ROI, ROE, DER, DCA,

LTDER, TADC, TIER, and EPS. Based on these ratios as variables can be chosen as the best variable in determining the performance of SOE and FCC cement companies according to discriminant stepwise method. The discriminant stepwise method uses Lambda's partial F and Wilks' values as the basis for having the independent variables included in the discriminant function. The wilks' lambda number has the range from 0 to 1, the closer to number 1, the ratio to the company indicates that it performs well and vice versa. The results obtained from these 22 ratios as independent variables in the discrimination function as many as 10 ratios which are cash ratio, quick ratio, TATO, RTO, ACP, ADI, GPM, OIR, TADC, and EPS become discriminant ratios that indicate the performance of the company. This is in accordance to the table below.

**Table 2:** Variable based on Discriminant Stepwise Method on Analysis Ratio

	Wilks' Lambda	F	Sig.
<b>Cash</b>	<b>,916</b>	<b>,461</b>	<b>,527</b>
<b>Quick</b>	<b>,910</b>	<b>,495</b>	<b>,513</b>
<b>TATO</b>	<b>,998</b>	<b>,008</b>	<b>,933</b>
<b>RTO</b>	<b>,961</b>	<b>,205</b>	<b>,670</b>
<b>ACP</b>	<b>,987</b>	<b>,068</b>	<b>,805</b>
<b>ADI</b>	<b>,926</b>	<b>,397</b>	<b>,556</b>
<b>GPM</b>	<b>,924</b>	<b>,412</b>	<b>,549</b>
<b>OIR</b>	<b>,949</b>	<b>,266</b>	<b>,628</b>
<b>TADC</b>	<b>,909</b>	<b>,502</b>	<b>,510</b>
<b>EPS</b>	<b>,910</b>	<b>,496</b>	<b>,513</b>

Source: Data processed

Based on the table above can be concluded that the proposed hypothesis is proven to be true where ratio analysis can be used to classify good and bad performance in which the dominant ratio having the highest value of lambda is Cash ratio, Quick ratio, TATO, RTO, ACP, ADI, GPM, OIR, TADC, and EPS.

#### **4.3 The Performance of SOE and FCC Cement Companies Based on the Decree of the Minister of Finance of the Republic of Indonesia No. 826/KMK. 013/1992 and its influence in the discrimination function**

To find out the performance of cement companies both SOE and FCC in Indonesia, it can be measured by the decree guidelines of Ministry of Finance of Republic of Indonesia No 826/KMK.013/1992. Based on the decree of Minister of Finance of RI No 826/KMK.013/1992, there are criteria as follows:

1. Very healthy, when the value of last year's performance weight has a number above 110.
2. Healthy, when the value of the last year's performance weight has a number above 100 to 110.
3. Less healthy, when the value of the last year's performance weight has a number above 90 to 100.
4. Unhealthy, when the value of the last year's performance weight has a number less than or equal to 90.

Based on the result of processed data, SOE and FCC cement companies can be measured according to decree of Minister of Finance of RI No 826/KMK.013/1992 as follows:

**Table 3:** Calculation of Performance based on Decree of Minister of Finance of RI No 826/KMK.013/1992

<b>Performance Calculation</b>					
<b>Period 2013 - 2016</b>					
No	Assessment Criteria	Unit	Weight	Value	Weight Value
1	<b>Rentability</b>				
	Semen Batu Raja	%	0,75	0,17	12,45
	Semen Indonesia			0,26	19,63
	Holcim			0,07	5,33
	Indocement			0,25	18,74
	Anhui Conch Cement			0,20	14,91
	Siam Cement			0,26	19,23
	Ultratech Cement			0,19	14,48
2	<b>Liquidity</b>				
	Semen Batu Raja	%	0,125	8,75	109,38
	Semen Indonesia			1,74	21,75
	Holcim			0,59	7,33
	Indocement			5,12	64,04
	Anhui Conch Cement			1,63	20,32
	Siam Cement			1,35	16,85
	Ultratech Cement			1,14	14,19
3	<b>Solvability</b>				
	Semen Batu Raja	%	0,125	9,19	114,88
	Semen Indonesia			3,48	43,46
	Holcim			2,01	25,11
	Indocement			7,22	90,25
	Anhui Conch Cement			3,19	39,90
	Siam Cement			1,88	23,55



	Ultratech Cement			2,24	28,02
4	<b>Total</b>				
	Semen Batu Raja				<b>236,71</b>
	Semen Indonesia				<b>84,85</b>
	Holcim				<b>37,77</b>
	Indocement				<b>173,03</b>
	Anhui Conch Cement				<b>75,13</b>
	Siam Cement				<b>59,63</b>
	Ultratech Cement				<b>56,70</b>

Source: Data processed

It can be concluded that the performance of SOE and FCC cement companies as follows:

1. Batu Raja Company has the result of **Very Healthy**,
2. Semen Indonesia Company **Unhealthy**,
3. Holcim Company **Unhealthy**,
4. Indocement Company **Very Healthy**,
5. Anhui Conch Cement Company **Unhealthy**,
6. Siam Cement Company **Unhealthy**,
7. Ultratech Cement Company **Unhealthy**.

Based on the Decree of Minister of Finance of RI No 826/KMK.013/1992 consisting of 3 ratios in the form of rentability, liquidity, and solvability. Those variables can be chosen as a significant role in the performance of SOE and FCC cement companies based on discriminant stepwise method. The discriminant stepwise method uses Lambda's partial F and Wilks' value as the basis for having the independent variables included in the discriminant function. The wilks' lambda number has the range from 0 to 1, the closer to 1, the ratio to the company indicates that it performs well and vice versa. The results obtained from 3 ratios as independent variables are as described in the table below.

**Table 4:** Variables based on Discriminant Stepwise Method on the Decree of Minister of Finance of RI No 826/KMK.013/1992

	Wilks' Lambda	F	Sig.
<b>Rentability</b>	<b>,993</b>	<b>,036</b>	<b>,857</b>

Source: Data processed

Based on the calculation above, it can be concluded that the proposed hypothesis is proven to be true where the ratio based on the decree of Minister of Finance of RI can be used to classify

the good and bad performance of companies where the dominant ratio having the highest value of Wilks' lambda is Rentability.

#### **4.4 Performance of Cement SOE and FCC Companies Based on the Decree of SOE Minister No: KEP-100/MBU/2002 in the Financial Aspect and its Influence in the Discrimination Function**

The assessment carried out based on the Decree of SOE Minister No: KEP-100/MBU/2002 in accordance with chapter II article 3 are:

1. Healthy category, which consists of:
  - a. **AAA** having the total score (TS) more than 95,
  - b. **AA** having the total score  $80 < TS \leq 95$ ,
  - c. **A** having the total score  $65 < TS \leq 80$ .
2. Less healthy category, which consists of:
  - a. **BBB** having the total score  $50 < TS \leq 65$ ,
  - b. **BB** having the total score  $40 < TS \leq 50$ ,
  - c. **B** having the total score  $30 < TS \leq 40$ .
3. Unhealthy category, which consist of:
  - a. **CCC** having the total score  $20 < TS \leq 30$ ,
  - b. **CC** having the total score  $10 < TS \leq 20$ ,
  - c. **C** having the total score = 10.

According to the tabel results, it can be concluded that:

1. Batu Raja Company has the performance of **Healthy**, having **A** predicate
2. Semen Indonesia Company **Healthy**, having **AA** predicate
3. Holcim Company **Less Healthy**, having **BBB** predicate
4. Indocement Company **Healthy**, having **AA** predicate
5. Anhui Conch Cement Company **Healthy**, having **A** predicate
6. Siam Cement Company **Healthy**, having **AA** predicate
7. Ultratech Cement Company **Healthy**, having **A** predicate

Based on the Decree of SOE Minister No: KEP-100/MBU/2002 having 8 ratios which are ROE, ROI, Cash ratio, Cash Ratio, Collection, PP, TATO, TMS to TA, and Current Ratio. Those ratios can be chosen as an indicator of performance of SOE and FCC cement companies based on discriminant stepwise method. The discriminant stepwise method uses Lambda's partial F and Wilks' value as the basis for having the independent variables included in the discriminant

function. The wilks' lambda number has the range from 0 to 1, the closer to 1, the ratio to the company indicates that it performs well and vice versa. The results obtained from 8 ratios as independent variables in the discriminant function only 3 ratios are chosen to be discriminant ratios indicate the performance of the company which are cash ratio, collection, and TATO. This is an accordance with the table below.

**Table 5:** Variables based on Discriminant Stepwise Method on the Decree of SOE Minister No: KEP-100/MBU/2002

	Wilks' Lambda	F	Sig.
<b>Cash</b>	<b>,916</b>	<b>,461</b>	<b>,527</b>
<b>Collection</b>	<b>,945</b>	<b>,292</b>	<b>,612</b>
<b>TATO</b>	<b>,998</b>	<b>,008</b>	<b>,933</b>

Source: Data processed

According to the calculation above using discriminant analysis, it can be concluded that the proposed hypothesis is proven to be true where the decree of SOE Minister can be used to classify good and bad performance where the dominant ratio having the highest value of wilks' lambda is Cash ratio, Collection, and TATO.

#### **4.5 SOE Cement Company Performance and FCC Cement Based on Analysis of Economic Value Added (EVA) and its Influence in the Discrimination Function**

The criteria for company performance indicators are if the company obtains an EVA with a positive value or  $EVA > 0$ , then the company has added value from the economic value into the company. So that it can be indicated that the company is in good condition. If the company gets a negative EVA value or  $EVA < 0$ , then there is no added value to the company or in other words the company is in a bad condition. If the company gets a break-even value or  $EVA = 0$ , there is no addition at all. It can be said that the company's performance is balanced.

The EVA analysis consisting of 5 ratios where in the form of D, rd, E, T, and re, those variables can be selected to be a significant role of the performance of SOE and FCC cement companies based on discriminant stepwise method. The discriminant stepwise method uses Lambda's partial F and Wilks' value as the basis for having the independent variables included in the discriminant function. The wilks' lambda number has the range from 0 to 1, the closer to 1, the ratio to the company indicates that it performs well and vice versa. The results obtained from these 5 ratios, only 3 ratios which are D, E, and re are becoming the discriminable ratios indicate the performance of the company. This is in accordance with the table below.

**Table 6:** Variables based on Discriminant Stepwise Method on EVA

	Wilks' Lambda	F	Sig.
<b>D</b>	<b>,965</b>	<b>,184</b>	<b>,686</b>
<b>E</b>	<b>,965</b>	<b>,184</b>	<b>,686</b>
<b>re</b>	<b>,915</b>	<b>,465</b>	<b>,526</b>

Source: Data processed

According to the whole calculation above using discriminant analysis, it can be concluded that the proposed hypothesis is proven to be true where ratio analysis can be used to classify good and bad performers where the dominant ratio having the highest value of wilks' lambda are D, E, and re.

#### 4.6 The Performance of SOE and FCC Cement Companies Based on Tobin's q Analysis

Tobin's q is used by companies for decision making, equity ownership relationships and company value, investment opportunities, and dividend financing by providing market value.

Tobin's q has the score interpretation such as:

1. Tobin's q < 1 shows that the management is undervalued. It is said that the management has failed in managing company assets.
2. Tobin's q = 1 shows that the management is in the condition of average. It is said that the management is stagnant in managing assets with investment growth is not developing.
3. Tobin's q > 1 shows that the management is in the condition of overvalued. It is said that the management is successful in managing company assets with high investment potential.

Based on the management of SOE and FCC cement companies' performance data through Tobin's q analysis as follows:

**Table 7:** The Results of Tobin's q on SOE and FCC Cement Companies in period 2013 – 2016

Type	NO	Companies	Q			
			2013	2014	2015	2016
<b>SOE</b>	1	Semen Batu Raja	8	7	4	2
	2	Semen Indonesia	3	3	2	2
<b>FCC</b>	3	Holcim	2	1	1	1
	4	Indocement	3	3	3	2
	5	Anhui Conch Cement	1	2	1	1
	6	Siam Cement	2	2	2	2
	7	Ultratech Cement	2	3	3	3

Source: Data processed

Based on the results of the data above, it can be identified that the SOE and FCC cement companies are above 1 having the overvalued shares or the company can manage its assets and the existing investments only Holcim and Anhui Conch Cement companies having the value of 1 that indicates the company can manage assets but the investment does not develop.

#### **4.7 SOE Cement Company Performance and FCC Cement Company Based on Altman Z Score Analysis and its Effect in the Discrimination Function.**

Regarding the Altman Z-Score analysis in determining the probability of bankruptcy the company can be measured by the following formula:

$$Z = 6,56 X_1 + 3,26 X_2 + 6,72 X_3 + 1,05 X_4$$

Information :

$X_1$  = Working Capital to Total Asset

$X_2$  = Retained Earning to Total Assets

$X_3$  = Earnings Before Interest and Taxes (EBIT) to Total Assets

$X_4$  = Market Value of Equity to Book Value of Total Liabilities

Having the criteria:

1. If  $Z > 2,9$  = "Safety" zone
2. If  $1,22 < Z < 2,9$  = "Grey" zone
3. If  $Z < 1,22$  = "Distress" zone.

Based on the data, all companies both SOE and FCC have values above 2.9 having indications that they are in the Safety zone. So that the company can be said to be in good condition or not bankrupt. Based on the Altman Z Score analysis consisting of 4 ratios in the form of  $X_1$ ,  $X_2$ ,  $X_3$ , and  $X_4$ , those variables can be chosen to be a significant role in the performance of SOE and FCC cement companies. The discriminant stepwise method uses Lambda's partial F and Wilks' value as the basis for having the independent variables included in the discriminant function. The wilks' lambda number has the range from 0 to 1, the closer to 1, the ratio to the company indicates that it performs well and vice versa. The results obtained from 4 ratios as independent variables only 2 ratios which are  $X_1$  and  $X_2$  becoming discriminant ratios indicate the performance of the company. This is in accordance with the table below.

**Table 8:** Variables based on Discriminant Stepwise Method on Altman Z-Score

	Wilks' Lambda	F	Sig.
<b>X1</b>	<b>,959</b>	<b>,212</b>	<b>,665</b>
<b>X2</b>	<b>,926</b>	<b>,399</b>	<b>,555</b>

Source: Data processed

The whole calculation using discriminant analysis showed in the table above can be concluded that the proposed hypothesis is proven to be true where Altman Z Score ratio can be used to classify good and bad performance where the dominant ratio having the highest value of wilks' lambda is X1 and X2.

## 5. Conclusion

The results of the research conducted on SOE and FCC cement companies are:

1. Based on the analysis of Du Pont System, SOE as well as FCC cement companies have good value with high FLM average value. It can be seen that the best value of Du Pont System analysis are from Indocement, Semen Indonesia, Siam Cement, Semen Batu Raja, Anhui Conch Cement, Ultratech Cement and Holcim Company in sequence. The dominant ratio having the highest value of Wilks' Lambda is TATO as an independent variable that precisely reflects the performance of SOE and FCC cement companies.
2. Based on financial ratio analysis consisting of the liquidity ratio of SOE and FCC has a positive value with different trends. This indicates that the company still has good performance with a company average value from period of 2013-2016.

Based on the growth results, the highest to the lowest value are Ultratech, Siam Cement, Anhui Conch Cement, Semen Indonesia, Indocement, Semen Batu Raja, and Holcim company sequent. The dominant ratio with the highest Wilks' lambda value is Cash ratio, Quick ratio, TATO, RTO, ACP, ADI, GPM, OIR, TADC, and EPS as independent variable that precisely reflects the performance of SOE and FCC cement companies.

3. Based on the analysis of the Decree of the Minister of Finance of RI No. 826/KMK. 013/1992 identified that the condition of healthy company performance was only owned by Semen Batu Raja and Indocement, while other companies were categorized as unhealthy. As well as the dominant ratio having the highest Wilks' Lambda value is Rentability as an independent variable that precisely reflects the performance of SOE and FCC cement companies.

4. Based on the analysis of the Decree of the Minister of SOE No: KEP-100/MBU/2002 in the financial aspects, it shows that there are companies that are healthy and less healthy. The healthy companies with AA predicate are Semen Indonesia, Indocement, Siam Cement. While healthy with predicate A Are Semen Batu Raja, Anhui Conch Cement, and Ultratech Cement. The companies that are less healthy with BBB predicate is Holcim. As well as the dominant ratio having the highest Wilks' lambda value is cash ratio, collection, and TATO as an independent variable that precisely reflects the performance of SOE and FCC cement companies.
5. The performance of SOE and FCC cement companies based on Economic Value Added (EVA) analysis has the result that the companies having positive EVA are Semen Indonesia, Holcim, Indocement, Anhui Conch Cement, and Siam Cement. While the rests do not have economic value such as Semen Batu Raja and Ultratech Cement. As well as the dominant ratio having the highest Wilks' lambda value is D, E, and re as an independent variable that precisely reflects the performance of SOE and FCC cement companies.
6. In Tobins'q analysis, it can be seen that the performance of SOE and FCC cement companies have various values having indications of overvalued and average stock values through average value per company. The companies having average value are Holcim and Anhui Conch Cement that indicates of the company can manage assets even though the investment owned does not develop. Whereas other companies have a stock values of overvalued meaning that the company can manage assets and investments develop.
7. The Altman Z-Score analysis shows that SOE and FCC have a value above 2.9 explaining that the company does not have a bankrupt condition. On the other hand, only Holcim company have the lowest value that indicates the company in the state of being bankrupt. As well as the dominant ratio having the highest Wilks' lambda value is X1 and X2 as an independent variable that precisely reflects the performance of SOE and FCC cement companies

## References

- Adira Kusumadiyanto. (2006). Financial Analysis to Assess Company Performance in the Cigarette Industry Group, retrieved from <http://repository.widyatama.ac.id/xmlui/handle/10364/450>.
- Agung, G. (2012). Financial Performance, retrieved from <http://eprints.uny.ac.id/7632/3/BAB%202-09409131020.pdf>.
- Agustinus Ribo. (2013). Financial Report Analysis to Assess the Financial Performance of Telecommunications Companies Listed on the Indonesia Stock Exchange (Case Study at PT Telekomuni Indonesia Tbk), retrieved from <http://repository.unhas.ac.id/handle/123456789/4465>.
- Aryati, G.R. (2014). Financial Report Analysis as a Tool to Assess SOE Performance at PT PLN (Persero) in 2012, retrieved from <http://eprints.uny.ac.id/16872/1/TUGAS%20AKHIR%20RETNO%20GALIH%20ARYA%20TI.pdf>.
- Astrini, S. F, et al. (2015). Practice of Corporate Governance and Value of SOE Companies in Indonesia, *Jurnal Akuntansi*/Volume XIX, No. 01, Januari 2015:1-30.
- Bambang Sudiyanto dan Elen Puspitasari. (2010). Tobin's Q and Altman Z-Score as Company Performance Measurement Indicators, *Kajian Akuntansi*, Februari 2010, Page 9-21 ISSN: 1979-4886.
- Bisnis Indonesia. (2017). *Ministri of Industry Determined to Spur Industrial Growth*, Ministry of Industry of the Republic of Indonesia, Jakarta Selatan
- Christina, N.P.Y, dan Sudana, I.P. (2013). Performance Assessment at PT. Adhi Karya with the Balanced Scorecard Approach, *e-Jurnal Akuntansi Universitas Udayana* 5.3 (2013): 516-529 ISSN: 2302-8556.
- David Lianto. (2013). Assessment of Corporate Financial Performance Using Du Pont Analysis, *Jurnal JIBEKA*, Volume 7, No. 2, Agustus 2013 : 25 – 31.
- Dodi Andrie. (2009). Financial Ratio Analysis as a Basis of Performance Assessment at PT. Telkom (Persero) Center, retrieved from [http://digilib.mercubuana.ac.id/manager/n!@file\\_skripsi/4320401-005%20Dodi%20Andrie.pdf](http://digilib.mercubuana.ac.id/manager/n!@file_skripsi/4320401-005%20Dodi%20Andrie.pdf).
- Erni Agustin. (2016). Financial Ratio Analysis for Financial Performance Assessment at PT. Indofarma (Persero) Tbk (Based on Decree of the Minister of SOE Number : KEP-



- 100/MBU/2002), *ejournal Ilmu Administrasi Bisnis*, 2016, 4 (1): 103-115 ISSN 2355-5408.
- Haryanti, C.S. (2015). Analisis Perbandingan Laporan Keuangan untuk Menilai Kinerja Keuangan pada Perusahaan Telekomunikasi (Studi Kasus BEI), *Jurnal Untag*, retrieved from <https://jurnal.untagsmg.ac.id/index.php/sa/article/view/154>.
- Indra Hariadi, et al. (2013). Corporate Financial Performance Assessment Based on Financial Ratio Analysis and Economic Value Added (EVA) (Case Study at PT. Trikonsel Oke, Tbk and PT. Matahari Departement Store, Tbk Registered on the Indonesia Stock Exchange Periode 2009 – 2011).
- Isti Fadah, et al. (2005). Financial Ratio Analysis as the Basis of Assessment of Corporate Financial Performance in the Consumer Goods Industry Listed on the Jakarta Stock Exchange, *Jurnal MODERNISASI*, Volume 1, Nomor 1, Februari 2005.
- Komar Benyamin. (2008). Comparison of Determinants of Financial Performance of Infrastructure and Non-Infrastructure Companies at Krakatau Steel Group, retrieved from <http://digilib.esaunggul.ac.id/perbandingan-determinan-kinerja-keuangan-perusahaan-infrastruktur-dan-non-infrastruktur-pada-krakatau-steel-group-4001.html>.
- Lutfi, D.A. (2013). Benefits of Financial Report Ratio Analysis for Assessing Corporate Financial Performance in Other Mineral Metal Industry Groups, retrieved from <http://repository.widyatama.ac.id/xmlui/bitstream/handle/123456789/2331/0106141.pdf?sequence=1>.
- Manafe, P. H. (2015). Performance Appraisal in Regional Water Supply Companies (PDAM) Pasuruan Regency Using Financial and Non-Financial Perspectives, retrieved from [http://etheses.uin-malang.ac.id/2317/12/10520097\\_Ringkasan.pdf](http://etheses.uin-malang.ac.id/2317/12/10520097_Ringkasan.pdf).
- Mamik Mardiani, et al. (2013). Corporate Financial Performance Evaluation Using Financial Ratio Analysis and EVA (Economic Value Added) (Case Study at PT HM Sampoerna, Tbk. Registered in IDX for the Period of 2009 – 2011), *Jurnal Administrasi Bisnis Vol 4*, No 2 (2013).
- Martinus Ristardi. (2008). Financial Report Analysis to Assess Company Performance, retrieved from [https://repository.usd.ac.id/2637/2/022214126\\_Full.pdf](https://repository.usd.ac.id/2637/2/022214126_Full.pdf).
- Muthia Sari. (2015). Analysis of Corporate Financial Performance Assessment Using the Method of Economic Value Added (EVA) (Case Study of PT. Bukit Asam (Persero) Tbk

- Registered on the Indonesia Stock Exchange), retrieved from [http://fe-akuntansi.unila.ac.id/download/27022015\\_0641031168.pdf](http://fe-akuntansi.unila.ac.id/download/27022015_0641031168.pdf).
- Naimatul Musahadah. (2015). Assessment of the Company's Financial Performance by Using Financial Ratio Analysis (Case Study of PT Hanjaya Mandala Sampoerna Tbk which was listed on IDX for the Period of 2011-2014).
- Ninik Lukiana. (2013). Implementation of Financial Ratios to Assess Financial Performance, *Jurnal WIGA* Vol 3, No. 2, September 2013 ISSN NO 2088-0944.
- Nuraini, et al. (2015). Corporate Financial Performance Assessment Using Analysis of Return on Investment (ROI) with the Du Pont System and Residual Income (RI) Approach (Case Study of Cosmetic Companies and Household Purposes that Listing on IDX in 2011-2013, *Jurnal Administrasi Bisnis (JAB)* Vol 26, No 2. September 2015.
- Nurlela, et al. (2012). Comparative Analysis of Financial Performance in Islamic Banking with Foreign Banking in Indonesia, *Jurnal Visioner & Strategis*, Volumen 1, Nomor 1, Maret 2012, ISSN: 2338-2864 p 95-106.
- Putu Sulastrri dan Hapsari, N.M. (2015). Financial Ratio Analysis to Assess Company Financial Performance (Case Study at PT. Andalan Finance Indonesia year 2011 – 2013), retrieved from <http://ejurnal.stiedharmaputra-smg.ac.id/index.php/JEMA/article/view/214>.
- Rachma Zannati dan Wardoyo, D.U. (2016). Reveiw of Islamci Bank Financial Perfomance through the Approach of Economic Value Added (EVA), *Jurnal Riset Manajemen dan Bisnis* Vol 1. No. 1, Juni 2016, ISSN 2527-7502.
- Reza Prayoga. (2014). Financial Performance Analysis of PT Pegadaian (Persero) Based on SOE Ministeral Decree Number KEP-100/MBU/2002 (Period of 2009-2012), retrieved from <http://repository.unib.ac.id/8131/>.
- Rizki, P.A. (2009). Comparison of Financial Performance Analysis of PT. Indosat Tbk Uses the Financial Ratio Method and Economic Value Added (EVA), retrieved from [http://www.gunadarma.ac.id/library/articles/graduate/economy/2009/Artikel\\_10205931.pdf](http://www.gunadarma.ac.id/library/articles/graduate/economy/2009/Artikel_10205931.pdf).
- Risky Fidianti. (2011). Analysis of Financial Performance Assessment with EVA Approach at PT Sumbere Batu Gowa in Makassar, retrieved from <http://repository.unhas.ac.id/handle/123456789/1139>.

- Rosyati. (2004). Food and Beverage Financial Health Analysis (Case Study at PT. Indofood Sukses Makmur Bekasi), retrieved from <http://jurnal.unimus.ac.id/index.php/psn12012010/article/view/471>.
- Santoso, Y. W. (2015). Calculation of ROE, ROA, and EVA Analysis of Financial Performance at CV Harmoni Mitra Sejahtera (Case Study on Mitra Sejahtera Harmoni CV Year 2011-2013) retrieved from [http://eprints.dinus.ac.id/17094/1/jurnal\\_15416.pdf](http://eprints.dinus.ac.id/17094/1/jurnal_15416.pdf).
- Silvi Junita dan Siti Khairani. (2013). Analysis of Company Performance by Using Financial Ratio Analysis on Telecommunications Companies Listed on IDX, retrieved from [http://eprints.mdp.ac.id/748/1/JURNAL%202009200043%20SILVI\\_JUNITA.pdf](http://eprints.mdp.ac.id/748/1/JURNAL%202009200043%20SILVI_JUNITA.pdf).
- Sucipta, I.K.A, et al. (2015). Analysis of Corporate Financial Performance by Using Financial Ratio and EVA (Economic Value Added) Methods in LQ 45 Companies Listed on the IDX, e-Journal Bisma Universitas Pendidikan Ganesha Jurusan Manajemen (Volumen 3 Tahun 2015).
- Suhartono, F.A. (2000). Analysis of the Health Level of Corporate Financial Case Study at Secang Unit II Clothing Patal Industry, retrieved from <http://www.library.usd.ac.id/Data%20PDF/F.%20Ekonomi/Akuntansi/932114114.pdf>.
- Sukhemi. (2005). Analysis of Financial Ratio to Predict Bankruptcy, retrieved from [http://ekonomi.upy.ac.id/files/ANALISIS%20RASIO%20KEUANGAN%20UNTUK%20MEMPREDIKSI%20KEBANGKRUTAN%20\\_SUKHEMI\\_.pdf](http://ekonomi.upy.ac.id/files/ANALISIS%20RASIO%20KEUANGAN%20UNTUK%20MEMPREDIKSI%20KEBANGKRUTAN%20_SUKHEMI_.pdf).
- Suryajaya, G.D dan Trenggana, A.F.M. (2015). Application of Du Pont System to Measure Go Public Banking Financial Performance Registered on the IDX, e-proceeding of management : Vol 2, No. 3 Desember 2015.
- Tulis, S.M, et al. (2011). Business Performance Measurement as an Information Source for Management to Establish Business Decisions (A Case Study of a Tobacco Company in Solo), Journal Unpar 2011, retrieved from <http://journal.unpar.ac.id/index.php/Sosial/article/viewFile/102/90>.
- Ulin Ni'mah. (2011). Analysis of Financial Performance at BMT Cooperative for Business Development in Bergas District, Semarang Regency, retrieved from <http://lib.unnes.ac.id/10662/4/12206.pdf>.
- Umiyati dan Faly, Q.P. (2015). Measuring the Performance of Islamic Banks with the RGEC Method, Jurnal Akuntansi dan Keuangan Islam Vol. 2, No. 2 (2015).

- Umi Barokah. (2014). Financial Report Analysis to Assess the Performance of Regional Water Supply Companies in Tirta Binangun, Kulon Progo Regency, retrieved from <http://eprints.uny.ac.id/16804/>.
- Utami, N.S. (2016). Financial Performance Analysis that Distinguishes Sharia Issuers and Non-Sharia Mining Sector Registered on the IDX, Jurnal Media Mahardhika Vol 14 No. 3, Mei 2016.
- Winarsa, E.A., 2010, Financial Performance, retrieved from <http://repository.widyatama.ac.id/xmlui/bitstream/handle/123456789/1436/Bab2.pdf?sequence=2>.
- Yuli Orniati. (2009). Financial Report as a Tool to Assess Financial Performance, Jurnal Ekonomi Bisnis Tahun 14, Nomor 3, November 2009.