

FINANCIAL PERFORMANCE AND HEALTH ASSESSMENT ANALYSIS AND MEASUREMENT OF STATE OWNED ENTERPRISE (SOE) CONSTRUCTION COMPANIES LISTED IN INDONESIA STOCK EXCHANGE BEFORE AND AFTER THE GOVERNMENT OF INDONESIA INFRASTRUCTURE DEVELOPMENT BOOM IN 2014/2015

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ABSTRACT

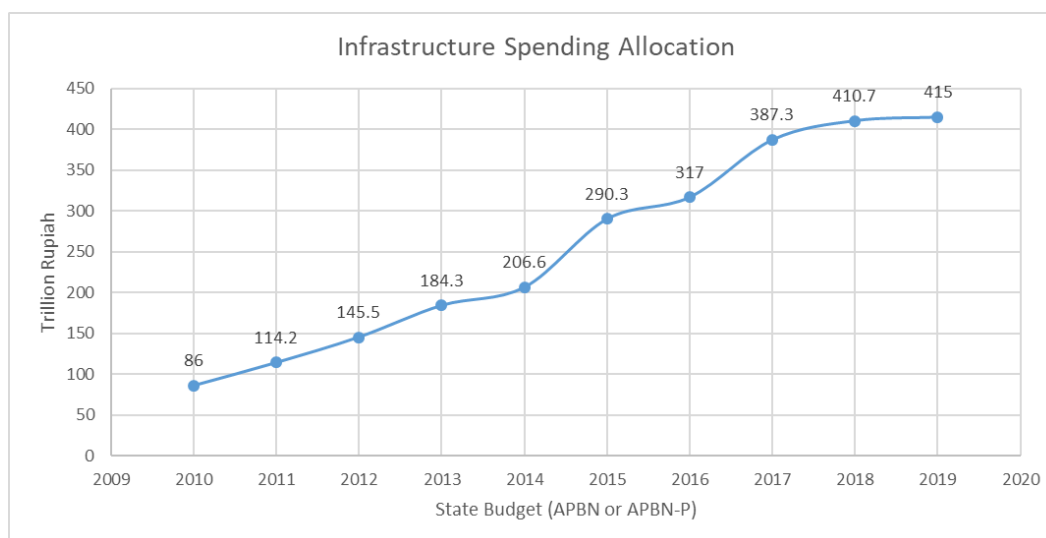
Decades of under-investment, lack of infrastructure development and combined with poor asset management conditions left Indonesia with a significant infrastructure deficit conditions. Late 2014, the elected President Joko Widodo tried to solve the issue and improved the competitiveness level of the Indonesian economy by focusing its effort on infrastructure development. These massive infrastructure development decisions taken by the Government of Indonesia (GoI), means opportunities for companies engaged within the construction sector, especially for construction companies with State-owned Enterprises (SOE) status. The GoI decisions appointing SOE construction companies as the main contractors and developers of the GoI key infrastructure projects means automatic revenue growth for the companies. In contrary, based on the January 2015 and January 2020 stock price data of SOE Construction Company listed in Indonesian Stock Exchange (IDX), all four (4) SOE construction companies stock price declined by 45.37% on average. On the contrary, within the same period, the Jakarta Composite Index (IHSG) increased by 20.35%. This research aimed to measure and analyze the financial performance and the health assessment of the SOE construction companies before the infrastructure development boom era (2011-2014 period) and after the infrastructure development boom era (2015-2018 period). Eight (8) financial ratio measurements, as per the Ministry of SOE Decree No. KEP-100/MBU/2002 (Decree), were used to analyze the financial performance and health assessment of SOE Construction Company. And, to see how significance the differences were, Paired t-test was used to measure the significant differences before and after the infrastructure development boom. It was found out that the financial performance and health assessment of SOE construction companies were declined and there were significant differences before and after the infrastructure development boom era.

Keywords: Ministry of SOE Decree No. KEP-100/MBU/2002, Health Assessment, Financial Performance, Financial Ratio, Infrastructure Development Boom, Paired T-Test, SOE Construction Company.

1. INTRODUCTION

Within an emerging nation, efficient infrastructure was key to develop the economic and social condition of the nation in order to compete with other nation. In case of Indonesia, decades of under-investment, lack of infrastructure development, and combined with poor asset management left Indonesia as a country with an infrastructure deficit. Late 2014, the elected President Joko Widodo tried to solve and tackle the issue and improve the competitiveness level of the Indonesian economy by focusing its effort on infrastructure development. Compared to his predecessor, President Susilo Bambang Yudhoyono, President Joko Widodo took more pragmatic approach to achieve its goals. One of the major policy taken by President Joko Widodo was shifting the budget allocations away from fuel subsidies towards the infrastructure development. It could be seen immediately, comparing the 2010 infrastructure spending allocation within the State Budget of 86 trillion rupiahs, the infrastructure spending allocation within the 2015 State Budget increased more than 230% to become 290 trillion rupiahs, increased more than 2 times. Even on 2019 State Budget, the infrastructure spending allocation increased even higher to become 415 trillion rupiahs, the highest infrastructure spending allocation ever in Indonesian history. Figure 1 below show the Infrastructure Spending Allocation with the State Budget within the period of 2010 until 2019. From the figure, it was seen that the trend significantly increased, comparing 2010-2014 State Budget and 2015 – 2019 State Budget.

Figure 1 - Government of Indonesia Infrastructure Spending 2010 – 2019
Source: State Budget 2010 - 2019



These massive infrastructure development decisions taken by the Government of Indonesia (GoI), means opportunities for companies engaged within the construction sector, especially for construction companies with State-owned Enterprises (SOE) status. The GoI decision appointing SOE construction companies as the main contractors and developers of the GoI key infrastructure projects means automatic revenue growth for the companies. Among many considerations why SOE construction companies being selected by the GoI, Most of SOE construction companies have bigger amount of assets, if we compare it with the privately-held construction company. With those big amount of asset, and with the similar SOE status, SOE construction companies shall automatically have a better position in terms of securing additional funds from SOE banks, compared to the privately-held construction companies. At the same time, capital injections made by the GoI, from the State Budget, into the SOE construction companies support the SOE construction companies handling its key infrastructure projects. Market growth, opportunities and financial capabilities of the SOE construction companies increased significantly. The GoI massive infrastructure development project promised a high revenue for the SOE construction companies.

Being positive at one side, at the same time, the massive infrastructure development project carried out by the GoI also create challenges for the SOE construction companies at the other side. Among many challenges faced by the SOE construction companies, related to the infrastructure development, was finding the source of funds, massive amount of funds required. For the period of 2015-2019 only, in order to be able to meet the GoI targets by 2019, IDR 4,796 trillion worth of investment in infrastructure required. At the same time, local and central state budgets, both could only provide up to forty one (41) percent of the total budget. Meaning that of the required total amount of funds, more than half shall come from other sector, including from the SOE construction company itself, which at the very end, may impact the SOE construction company performance, operationally and financially, both short term and long term.

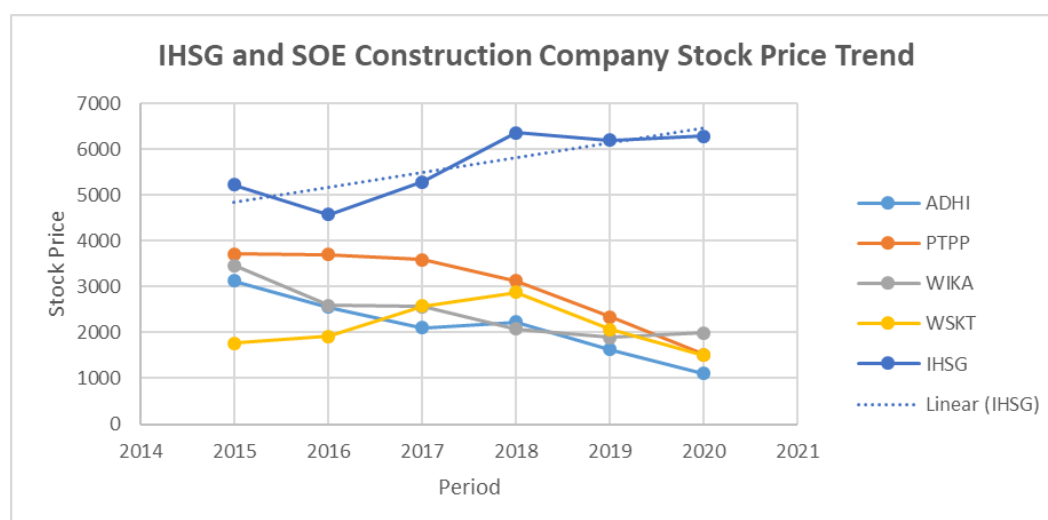
This research aimed to measure and analyze the financial performance and health assessment of the SOE construction companies before the infrastructure development boom era (2011-2014 period) and after the infrastructure development boom era (2015-2018 period), using financial ratios measurement set by the Ministry of SOE Decree No. KEP-100/MBU/2002 (Decree). This study also aimed to see how significance the difference of the financial performance, using profitability, liquidity, activity and solvability ratios of SOE construction companies, and the health assessment level before and after the infrastructure development boom in 2014/2015.

II. LITERATURE REVIEW

II.1 SOE CONSTRUCTION COMPANIES IN INDONESIA

There were four (4) SOE construction company listed on the IDX. They were PT. Adhi Karya (Persero) Tbk (ADHI), PT. Pembangunan Perumahan (Persero) Tbk. (PTPP), PT. Waskita Karya (Persero) Tbk. (WSKT), and PT. Wijaya Karya (Persero) Tbk. (WIKA). Based on the SOE construction company stock price from January 2015 until January 2020, the stock price of those four (4) companies were all declined by 45.37% on average. See Figure 2 below showing the SOE construction company stock price during the period of January 1, 2015 until January 1, 2020.

Figure 2 - SOE Construction Company Stock Price 2015 – 2020
Source: IDX Data 2015 - 2020



Based on the figure, ADHI, PTPP, WIKA, and WSKT stock price were all declining, 64.91%, 59.15%, 42.47% and 14.92%, January 1, 2015 to January 1, 2020. A contradict situation, during the period where the SOE construction company market was growth significantly, the stock price were declining. At the same time, the average industry stock price was actually increased, proven by the increased of the Jakarta Composite Index at 20.35%.

II.2 PREVIOUS RESEARCH ON FINANCIAL PERFORMANCE AND HEALTH ASSESSMENT

Studies on financial performance and health assessment conducted by many researchers. More specific, studies on financial performance and health assessment of SOE in Indonesia, using the measurement criteria as per the Decree also been conducted by researchers. Daryanto and Hasiholan (2018) measured and analyzed the financial performance and health assessment of PT. Perusahaan Gas Negara Tbk. The research indicated that good financial health condition levels achieved by PT. Perusahaan Gas Negara Tbk. within the period of 2013 until 2017 and categorized as “Healthy”. Another study, Brazer and Daryanto (2019) measured and analyzed the effect of massive capital injection program by the GoI upon the SOE construction company financial performance and health condition within the period of 2009 until 2018. The study used financial ratios measurement set by the Decree. The research indicated that the massive capital injected by the GoI, somehow gave a negative effect upon the SOE construction company financial performance and health assessment. Based on the study, the financial performance and health assessment within the period of 2014 until 2019 decreased. As a result, efficiency, collection method and properly maintain cashflow should be conducted by the SOE construction company for improvement.

Other researchers, besides measuring and analyzing financial performance and health assessment, conduct studies measuring and evaluating the significant differences before and after one certain condition. Studies by Daryanto and Nurfadilah (2018) to the Indonesian oil and gas industry, financial performance and health assessment were measured. Significance differences before and after the decline in oil and gas production also examined. The study showed that the companies were still in good financial condition, although it experienced losses. In addition, there were significance difference in current ratio and return on equity before and after the decline in oil and gas production.

Another study, tried to combined even further, examining the financial performance and health assessment of SOE in Indonesia, using the measurement criteria as per the Decree, and combine it with evaluating the significant differences before and after one certain condition. Studies by Daryanto and Daryanto (2019), analyzed the financial health condition of two (2) SOE pharmaceutical company (PT. Kimia Farma and PT. Bio Farma) and two private pharmaceutical companies (PT. Kalbe Farma and PT. Darya Varia), before and after the implementation of the National Health Insurance or *Jaminan Kesehatan Nasional* (JKN) program. The research indicated that all those pharmaceutical companies categorized as “Healthy”.

Based on the previous research mentioned above, this research tried to fill in the gap. The gap to focus on SOE construction company sector only. The gap for not only examining the financial performance and health assessment of the SOE construction company, but also evaluating the significant differences before the infrastructure development boom era (2011-2014 period) and after the infrastructure development boom era (2015-2018 period).

II.3 THE MINISTRY OF STATE-OWNED ENTERPRISES (SOE) DECREE

The GoI, as the ultimate shareholder of SOE, through its representative, the Ministry of State-owned Enterprises, issued the Decree of Ministry of State-owned Enterprises (SOEs) No. KEP-100/MBU/2002 about the Health Level Assessment of State-owned Enterprises (Decree). Output of this Health Assessment method was the Health Level of the State-owned Enterprises. The category, value and score of each Health Level were detailed on Table 1 below:

Table 1 Health Level – Category, Value and Score
Source: The Ministry of SOE Decree No. KEP-100/MBU/2002

Category	Value	Score
Healthy	AAA	TS > 95
Healthy	AA	80 < TS =< 95
Healthy	A	65 < TS =< 80
Less Healthy	BBB	50 < TS =< 65
Less Healthy	BB	40 < TS =< 50
Less Healthy	B	30 < TS =< 40
Unhealthy	CCC	20 < TS =< 30
Unhealthy	CC	10 < TS =< 20
Unhealthy	C	TS =< 10

Each aspect have its own specific indicators. For the financial aspect, the Decree set eight (8) indicators to measure the financial health. They were Return on Equity (ROE) Ratio, Return on Investment (ROI) Ratio, Cash Ratio, Current Ratio, Collections Periods, Inventory Turnover, Total Asset Turnover (TATO) Ratio and Total Equity to Total Asset (TETA) Ratio. Taken from the Decree, detail of each Assessment Indicator Score were detailed on Table 2 below.

Table 2: List of Assessment Score
Source: The Ministry of SOE Decree No. KEP-100/MBU/2002

Assessment Indicator	Score
Return on Equity (ROE)	20
Return on Investment (ROI)	15
Cash Ratio	5
Current Ratio	5
Collection Period	5
Inventory Turnover	5
Total Asset Turnover (TATO)	5
Total Equity to Total Asset (TETA)	10
Total Score (TS)	70

II.4 VARIABLE AND WEIGHT SCORE

II.4.A. PROFITABILITY PERFORMANCE

Kasmir (2008), profitability ratio is a ratio to assess the company's ability to seek profits. This ratio also provides a measure of the level of management effectiveness of a company. This is shown by the profits generated from sales and investment income. Efficiency of the company was shown with this ratio. Based on the Decree, the profitability performance was measured using ROE and ROI ratios.

Anthony (2011), ROE reflects how much the SOE construction company has earned on the funds invested by the shareholders, directly or through retained earnings. ROE ratio is obviously of interest to both present or prospective shareholders, and is also of concern to the management of SOE construction company because this measure is viewed as an important indicator of shareholder value creation. Anthony (2011), ROI was used to calculate the ability of the SOE construction company to measure the income generated on investment relative to the amount of money invested by the SOE construction company.

Based on the Decree, the formula to calculate ROE and ROI were as follow:

- Return on Equity (ROE) = (Net Income / Shareholder's Equity) x 100%.
- ROI = ((EBIT + Depreciation) / Capital Employed) x 100%

Table 3 below shows the assessment score of ROE and ROI based on the Decree.

Table 3: Assessment Score of ROE and ROI
Source: The Ministry of SOE Decree No. KEP-100/MBU/2002

ROE (%)	Score	ROI (%)	Score
15 > ROE	20	18 > ROI	15
13 < ROE <= 15	18	15 < ROI <= 18	13.5
11 < ROE <= 13	16	13 < ROI <= 15	12
9 < ROE <= 11	14	12 < ROI <= 13	10.5
7,9 < ROE <= 9	12	10,5 < ROI <= 12	9

$6,6 < ROE \leq 7,9$	10	$9 < ROI \leq 10,5$	7.5
$5,3 < ROE \leq 6,6$	8.5	$7 < ROI \leq 9$	6
$4 < ROE \leq 5,3$	7	$5 < ROI \leq 7$	5
$2,5 < ROE \leq 4$	5.5	$3 < ROI \leq 5$	4
$1 < ROE \leq 2,5$	4	$1 < ROI \leq 3$	3
$0 < ROE \leq 1$	2	$0 < ROI \leq 1$	2
$ROE \leq 0$	0	$ROI < 0$	1

II.4.B. LIQUIDITY PERFORMANCE

Munawir (2004), liquidity ratio is the ratio intended to measure the company's liquidity or the ability of a company to fulfill all financial obligations that must be paid immediately. To be able to fulfill all obligations of the company at maturity, companies must have current assets whose amount must be far greater than the liability that must be paid immediately against current debts. According to the Decree, Cash Ratio and Current Ratio were used to measure the liquidity performance.

Cash Ratio was used to measure the SOE construction company ability to pay its short-term debt. If the value higher than one (1.0), the SOE construction company has more cash to pay its debt. If the value equal to one (1.0), the SOE construction company has the same amount between cash and debt. And, if the value smaller than one (1.0), the SOE construction company has less cash to pay its debt.

Anthony (2011), Current Ratio indicate the company ability to meet its current obligations, because if current assets do not exceed current liabilities by a comfortable margin, the SOE construction company may be unable to pay its current bills. This is because most current assets were expected to be converted into cash within a year or less, whereas most current liabilities were obligations expected to use cash within a year or less. A high current ratio is not necessarily better than a low current ratio. If the SOE construction company has a too high Current Ratio, it indicates that SOE construction company has a problem in managing its current asset. If the SOE construction company has a current ratio below one (1.0), it indicates that SOE construction company has a problem with its short-term debt.

Based on the Decree, the formula to calculate Cash Ratio and Current Ratio were as follow:

- Cash Ratio = $((\text{Cash} + \text{Cash Equivalent}) / \text{Current Liabilities}) \times 100\%$
- Current Ratio = $(\text{Current Asset} / \text{Current Liabilities}) \times 100\%$

Table 4 below shows the assessment score of Cash Ratio and Current Ratio based on the Decree.

Table 4: Assessment Score of Cash Ratio and Current Ratio
Source: The Ministry of SOE Decree No. KEP-100/MBU/2002

Cash Ratio = x (%)	Score	Current Ratio = x (%)	Score
$x \geq 35$	5	$125 \geq x$	5
$25 \leq x < 35$	4	$110 \leq x < 125$	4
$15 \leq x < 25$	3	$100 \leq x < 110$	3
$10 \leq x < 15$	2	$95 \leq x < 100$	2
$5 \leq x < 10$	1	$90 \leq x < 95$	1
$0 \leq x < 5$	0	$x < 90$	0

II.4.C. ACTIVITY PERFORMANCE

Raharjaputra (2009), activity ratio is a ratio that measures how effective (yield) the company uses its resources. According to the Decree, activity performance was measured using the Collection Periods, Inventory Turnover and TATO. Collection Periods was an important indicator for the SOE construction company to monitor its cash flow and the SOE construction company ability to pay its debt in due date. The lesser the Collection Periods value, the better it was for the SOE construction company. Inventory Turnover was used to measure how many times the inventory were being sold over one period. The lesser the Inventory Turnover value, the better it is for the SOE construction company. While for TATO, it was used to measures the efficiency of the SOE construction company ability to use its asset to generate sales. The higher the TATO value, the better it is for the SOE construction company.

Based on the Decree, the formula to calculate Collection Periods, Inventory Turnover and TATO were as follow:

- Collection Periods = $(\text{Average Account Receivables} / \text{Sales Revenue}) \times 365 \text{ days}$.
- Inventory Turnover = $(\text{Cost of Goods Sold} / \text{Average Inventory}) \times 365 \text{ days}$
- Total Asset Turnover (TATO) = $(\text{Revenue} / \text{Capital Employed}) \times 100\%$

Table 5, 6 and 7 below shows the assessment score of Collection Periods, Inventory Turnover and TATO based on the Decree.

Table 5: Assessment Score of Collection Periods
Source: The Ministry of SOE Decree No. KEP-100/MBU/2002

Collection Period = x (days)	Adjustment = x (days)	Score
$x \leq 60$	$30 < x$	5
$60 < x \leq 90$	$30 < x \leq 35$	4.5
$90 < x \leq 120$	$25 < x \leq 30$	4
$120 < x \leq 150$	$20 < x \leq 25$	3.5
$150 < x \leq 180$	$15 < x \leq 20$	3
$180 < x \leq 210$	$10 < x \leq 15$	2.4
$210 < x \leq 240$	$6 < x \leq 10$	1.8
$240 < x \leq 270$	$3 < x \leq 6$	1.2
$270 < x \leq 300$	$1 < x \leq 3$	0.6
$300 > x$	$0 < x \leq 1$	0

Table 6: Assessment Score of Inventory Turnover
Source: the Decree of Ministry of SOE No. KEP-100/MBU/2002

Inventory Turnover = x (days)	Adjustment = x (days)	Score
$x \leq 60$	$30 < x$	5
$60 < x \leq 90$	$30 < x \leq 35$	4.5
$90 < x \leq 120$	$25 < x \leq 30$	4
$120 < x \leq 150$	$20 < x \leq 25$	3.5
$150 < x \leq 180$	$15 < x \leq 20$	3
$180 < x \leq 210$	$10 < x \leq 15$	2.4
$210 < x \leq 240$	$6 < x \leq 10$	1.8
$240 < x \leq 270$	$3 < x \leq 6$	1.2
$270 < x \leq 300$	$1 < x \leq 3$	0.6
$300 > x$	$0 < x \leq 1$	0

Table 7: Assessment Score of TATO
Source: The Ministry of SOE Decree No. KEP-100/MBU/2002

TATO = x (%)	Adjustment = x (%)	Score
$120 > x$	$20 > x$	5
$105 < x \leq 120$	$15 < x \leq 20$	4.5
$90 < x \leq 105$	$10 < x \leq 15$	4
$75 < x \leq 90$	$5 < x \leq 10$	3.5
$60 < x \leq 75$	$0 < x \leq 5$	3
$40 < x \leq 60$	$x \leq 0$	2.5
$20 < x \leq 40$	$x < 0$	2
$x \leq 20$	$x < 0$	1.5

II.4.D SOLVABILITY PERFORMANCE

Riyanto (2008), a company's solvency shows the ability of the company to meet all its financial obligations if the company was liquidated within that time. According to the Decree, the solvability performance was measured using the Total Equity to Total Asset (TETA) ratio. The TETA ratio measures the percentage of SOE construction company's asset owned by its investors and the leverage level of the SOE construction company with its debt. If the SOE construction company has less value, it indicates that the SOE construction company funding its asset inefficiently. In the other words, the SOE construction company has very low net value for the investor.

Based on the Decree, the formula to calculate TETA is as follow:

$$\text{Total Equity to Total Asset} = (\text{Total Equity} / \text{Total Asset}) \times 100\%$$

Table 8 below shows the assessment score of TETA based on the Decree.

Table 8: Assessment Score of TETA
Source: The Ministry of SOE Decree No. KEP-100/MBU/2002

Total Equity to Total Asset = x (%)	Score
$x < 0$	0
$0 \leq x < 10$	4
$10 \leq x < 20$	6
$20 \leq x < 30$	7.25
$30 \leq x < 40$	10
$40 \leq x < 50$	9
$50 \leq x < 60$	8.5
$60 \leq x < 70$	8
$70 \leq x < 80$	7.5
$80 \leq x < 90$	7
$90 \leq x < 100$	6.5

III. RESEARCH METHOD

This research was conducted based on the quantitative research methods, Financial Ratio Analysis (FRA) and Paired T-Test Analysis. FRA was used to assess the financial performance of a company. FRA also used by a company to examine the level of healthiness of such company using the calculation of profitability ratio, liquidity ratio, activity ratio and solvability ratio. As per the Decree, eight (8) financial ratios is used on this study to measure the financial health of SOE construction company, they were ROE, ROI, Cash Ratio, Current Ratio, Collection Period, Inventory Turnover, TATO and TETA.

In addition, as of the objectives of this study is to evaluate the significant difference of the financial performance, using profitability, liquidity, activity and solvability ratios of SOE construction companies, and health assessment before and after the infrastructure development boom in 2014/2015, Paired T-Test is used.

Data used in the research were all secondary data, taken from the published annual report of SOE construction company listed in the IDX, ADHI, PTPP, WSKT and WIKA within the period of 2010 until 2018.

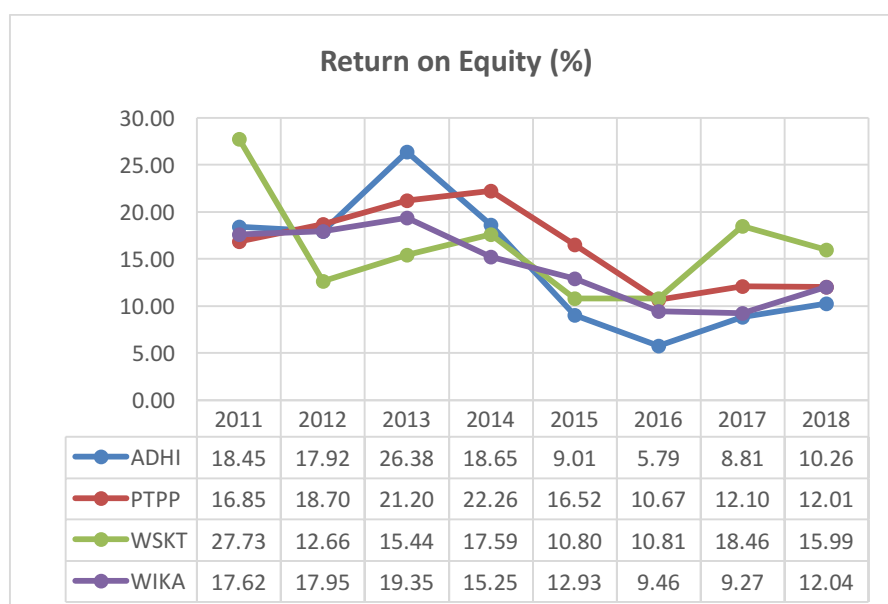
IV. RESULT AND DISCUSSION

IV.1. PROFITABILITY ANALYSIS

As per the Decree, ROE and ROI used to calculate the profitability ratio of the SOE construction companies.

ROE, figure 3 below shows the comparison of percentages value of ROE of the SOE construction companies within the period before (2011 – 2014) and after (2015 – 2018) the GoI decide to boost its infrastructure development.

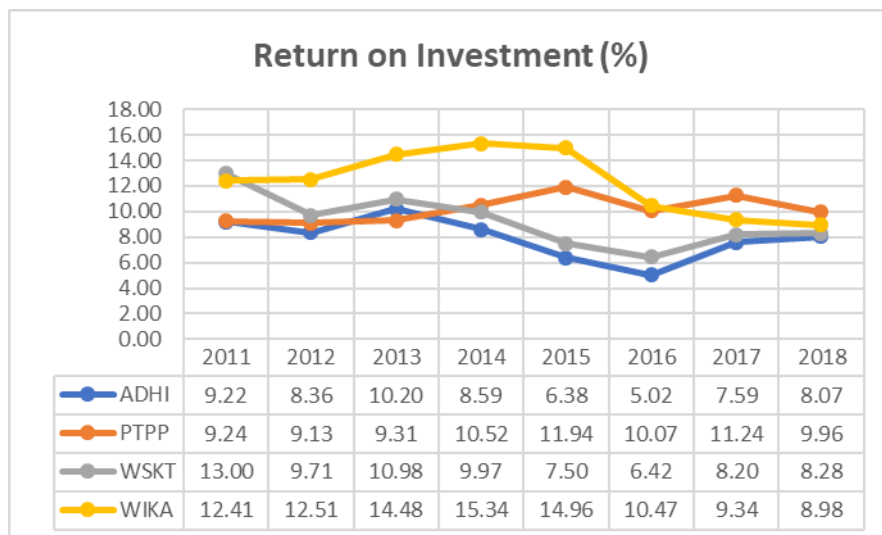
Figure 3 - Return of Equity of SOE Construction Companies
Source: Annual Reports 2011 – 2019 calculated by MS Excel 2016



Based on the figure above, the ROE percentages of the SOE construction companies (before (2011 – 2014) and after (2015 – 2018) the GoI decide to boost its infrastructure development) were declined (38.71% on average).

ROI, figure 4 below shows the comparison of percentages value of ROI of the SOE construction companies within the period before (2011 – 2014) and after (2015 – 2018) the GoI decide to boost its infrastructure development.

Figure 4 - Return of Investment of SOE Construction Companies
Source: Annual Reports 2011 – 2019 calculated by MS Excel 2016



Based on the figure above, the ROI percentages of the SOE construction companies (before (2011 – 2014) and after (2015 – 2018) the GoI decide to boost its infrastructure development) were declined (15.74% on average).

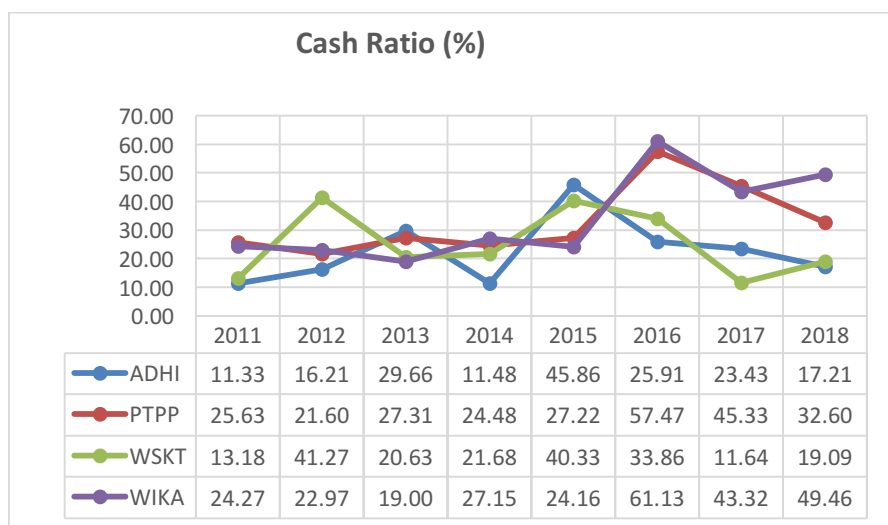
From the above ROE and ROI result, it shown that the overall profitability performance of SOE construction companies during the period after the GoI decide to boost its infrastructure development (period of 2015 – 2018) declined, compared to the period before the GoI decide to boost its infrastructure development, (period of 2011 – 2014). Based on the ROE data, the number of profit received by the SOE construction companies compared to the value of the equity that belongs to the SOE construction company stockholder decreased over the period. It shown that the capability of the SOE construction company in generating value upon its investors decreased over the period. Based on the ROI data, the number of return received by the SOE construction companies upon the investment amount spent by the SOE construction companies declined over the period. It shown that the capability of the SOE construction companies in generating profit upon its investment decreased over the period.

IV.2. LIQUIDITY ANALYSIS

As per the Decree, Cash Ratio and Current Ratio selected to calculate the liquidity ratio of the SOE construction companies.

Cash Ratio, figure 5 below shows the comparison of percentages value of Cash Ratio of the SOE construction companies within the period before (2011 – 2014) and after (2015 – 2018) the GoI decide to boost its infrastructure development.

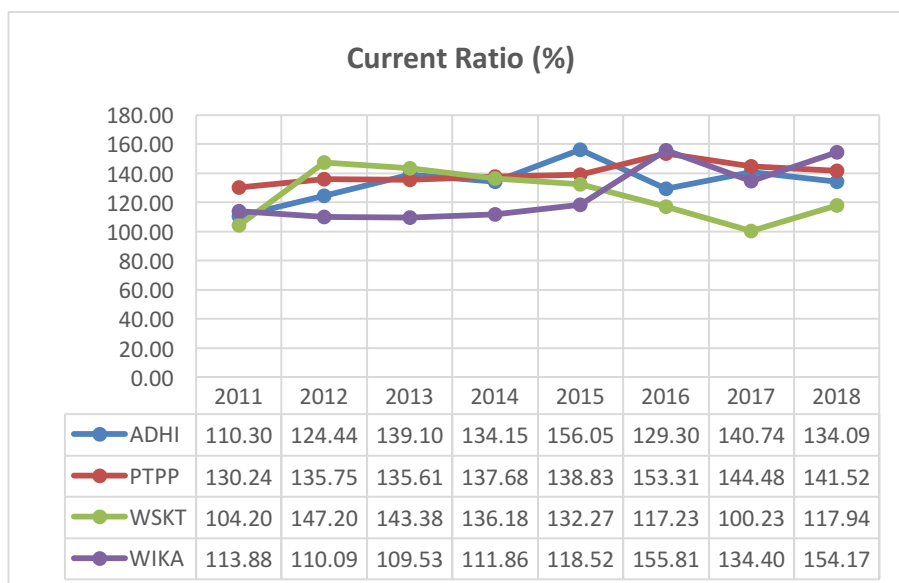
Figure 5 - Cash Ratio of SOE Construction Companies
Source: Annual Reports 2011 – 2019 calculated by MS Excel 2016



Based on the figure above, the Cash Ratio percentages of the SOE construction companies (before (2011 – 2014) and after (2015 – 2018) the GoI decide to boost its infrastructure development) were increased (56.77% on average).

Current Ratio, figure 6 below shows the comparison of percentages value of Current Ratio of the SOE construction companies within the period before (2011 – 2014) and after (2015 – 2018) the GoI decide to boost its infrastructure development.

Figure 6 - Current Ratio of SOE Construction Companies
Source: Annual Reports 2011 – 2019 calculated by MS Excel 2016



Based on the figure above, the Current Ratio percentages of the SOE construction companies (before (2011 – 2014) and after (2015 – 2018) the GoI decide to boost its infrastructure development) were increased (7.99% on average).

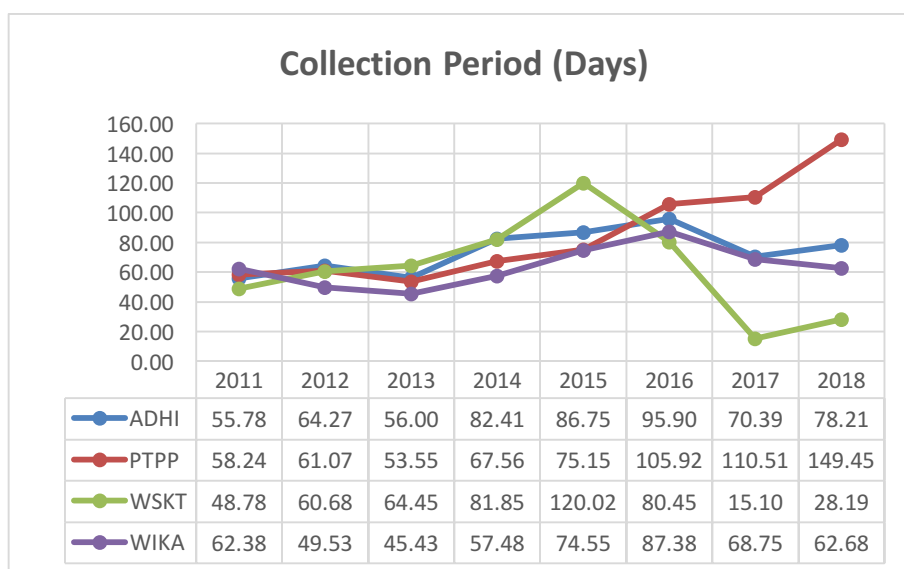
From the above Cash Ratio and Current Ratio calculation, it is shown that the overall liquidity performance of SOE construction companies the period after the GoI decide to boost its infrastructure development (period of 2015 – 2018) increased, compared to the period before the GoI decide to boost its infrastructure development, (period of 2011 – 2014). Based on the Cash Ratio data, the capability of the companies to fulfil its current liabilities were better over the period. Based on the Current Ratio data, the comparison between the SOE construction companies current asset and SOE construction companies current liabilities were better over the period. Both ratios shown that the SOE construction companies were better in managing its debt. The SOE construction companies have enough short term resources to fulfil its short term liabilities.

IV.3. ACTIVITY ANALYSIS

As per the Decree Collection Period, Inventory Turnover and TATO were selected to calculate the activity ratio of the SOE construction companies.

Collection Period, figure 7 below shows the comparison of days of Collection Period of the SOE construction companies within the period before (2011 – 2014) and after (2015 – 2018) the GoI decide to boost its infrastructure development.

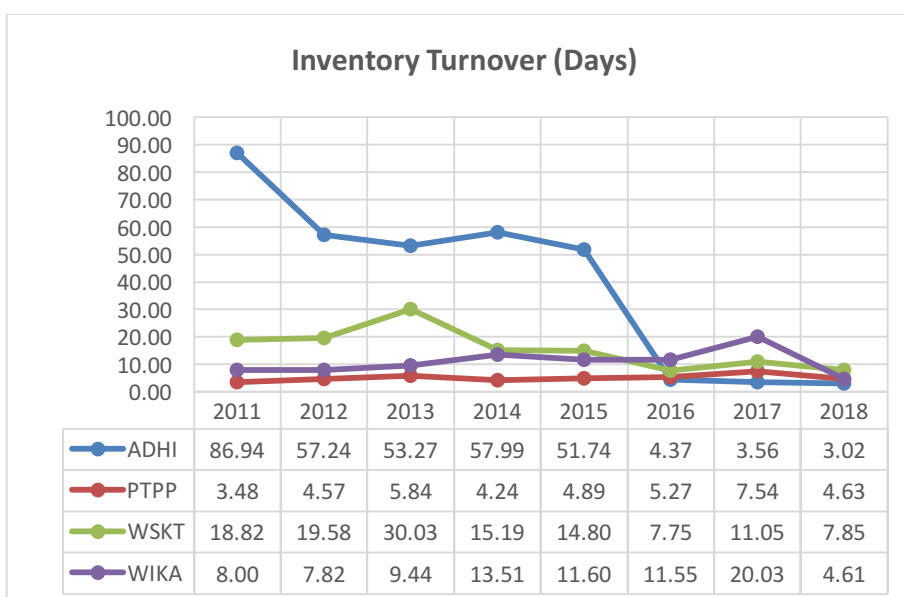
Figure 7 - Collection Period of SOE Construction Companies
Source: Annual Reports 2011 – 2019 calculated by MS Excel 2016



Based on the Figure 7 above, the Collection Period data of the SOE construction companies (before (2011 – 2014) and after (2015 – 2018) the GoI decide to boost its infrastructure development) were increased (35.87% on average).

Inventory Turnover, figure 8 below shows the comparison of days of Inventory Turnover of the SOE construction companies within the period before (2011 – 2014) and after (2015 – 2018) the GoI decide to boost its infrastructure development.

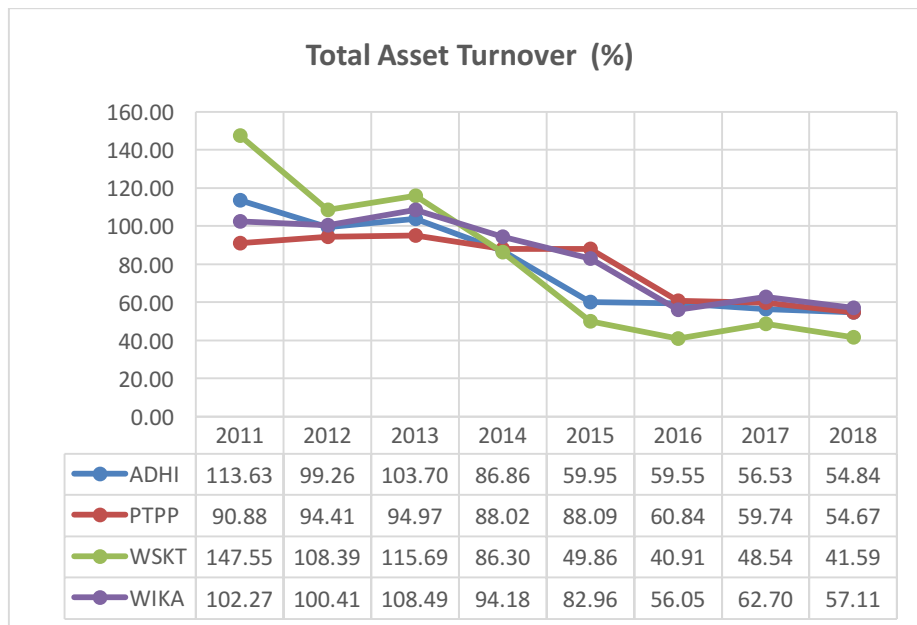
Figure 8 Inventory Turnover of SOE Construction Companies
Source: Annual Reports 2011 – 2019 calculated by MS Excel 2016



Based on the Figure 8 above, the Inventory Turnover data of the SOE construction (before (2011 – 2014) and after (2015 – 2018) the GoI decide to boost its infrastructure development) were decreased (19.86% on average).

Total Asset Turnover (TATO), figure 9 below shows the comparison of percentages value of TATO of the SOE construction companies within the period before (2011 – 2014) and after (2015 – 2018) the GoI decide to boost its infrastructure development.

Figure 9 - TATO of SOE Construction Companies
Source: Annual Reports 2011 – 2019 calculated by MS Excel 2016



Based on the figure 9 above, the TATO percentages of the SOE construction companies (before (2011 – 2014) and after (2015 – 2018) the GoI decide to boost its infrastructure development) were decreased (41.98% on average).

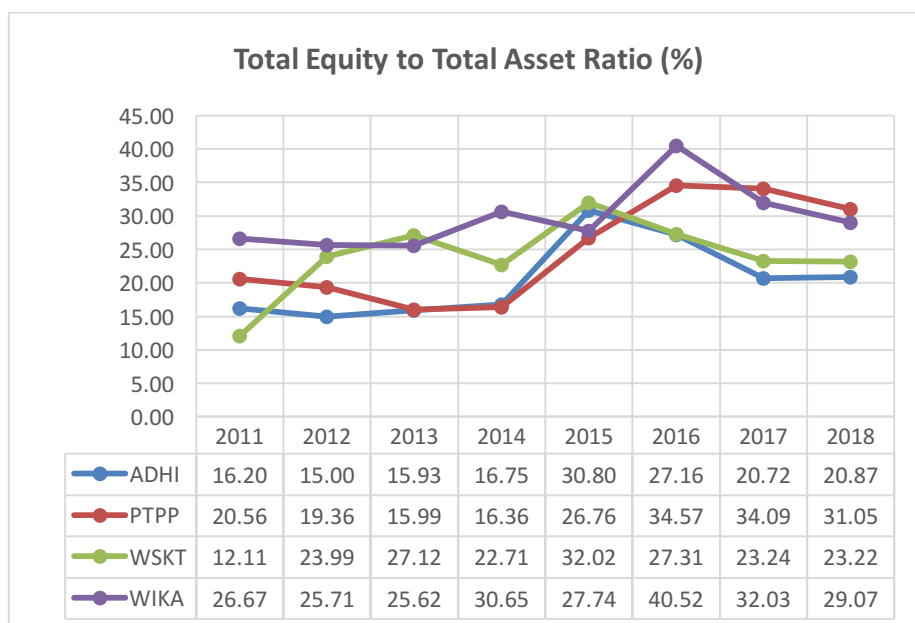
From the above activity ratios (Collection Period, Inventory Turnover and TATO), it is shown that the overall activity performance of SOE construction companies the period after the GoI decide to boost its infrastructure development (period of 2015 – 2018) relatively decreased, compared to the period before the GoI decide to boost its infrastructure development, (period of 2011 – 2014). From Collection Period, it showed as negative result because the number is decreased. Same things with the TATO, it showed as negative result because the number is decreased. However, the Inventory Turnover is decreased which is a positive result for the SOE construction companies.

IV.4. SOLVENCY ANALYSIS

As per the Decree, TETA ratio selected to calculate the solvability of the SOE construction companies.

Figure 10 below shows the comparison of percentages value of TETA of the SOE construction companies within the period before (2011 – 2014) and after (2015 – 2018) the GoI decide to boost its infrastructure development.

Figure 10 - TETA Ratio of SOE Construction Companies
Source: Annual Reports 2011 – 2019 calculated by MS Excel 2016



Based on the Figure 10 above, the TETA percentages of the SOE construction companies (before (2011 – 2014) and after (2015 – 2018) the GoI decide to boost its infrastructure development) were increased (43.25% on average).

From the above TETA calculation, it is shown that the overall solvability performance of SOE construction companies the period after the GoI decide to boost its infrastructure development (period of 2015 – 2018) increased, compared to the period before the GoI decide to boost its infrastructure development, (period of 2011 – 2014). The total number of equity upon the total number of asset is increasing. Showing that the SOE construction company dependency upon liabilities were getting lower.

IV.5. HEALTH ASSESSMENT

Using the financial ratio analysis result, the Financial Health Assessment score of each company calculated, based on the criteria and scoring system set by the Decree.

ADHI, Table 9 below shows the Health Indicator Score of ADHI. Based on the table, the average Total Health Indicator Score for ADHI (before (2011 – 2014) and after (2015 – 2018) the GoI decide to boost its infrastructure development) were decreased by 13.87% on average (average Total Health Indicator Score of 53.63 before to become average Total Health Indicator Score of 46.19 after).

Table 9 – Health Indicator Score of ADHI
Source: Annual Reports 2011 – 2018 calculated by MS Excel 2016

Indicators	Before								After							
	2011		2012		2013		2014		2015		2016		2017		2018	
	Ratio	Score	Ratio	Score	Ratio	Score	Ratio	Score	Ratio	Score	Ratio	Score	Ratio	Score		
Profitability																
ROI (%)	9.22	7.50	8.36	6.00	10.20	7.50	8.59	6.00	6.38	5.00	5.02	5.00	7.59	6.00	8.07	6.00
ROE (%)	18.45	20.00	17.92	20.00	26.38	20.00	18.65	20.00	9.01	14.00	5.79	8.50	8.81	12.00	10.26	14.00
Liquidity																
Cash Ratio (%)	11.33	2.00	16.21	3.00	29.66	4.00	11.48	2.00	45.86	5.00	25.91	4.00	23.43	3.00	17.21	3.00
Current Ratio (%)	110.30	4.00	124.44	4.00	139.10	5.00	134.15	5.00	156.05	5.00	129.30	5.00	140.74	5.00	134.09	5.00
Collection Period (Days)	55.78	5.00	64.27	4.50	56.00	5.00	82.41	4.50	86.75	4.50	95.90	4.00	70.39	4.50	78.21	4.50
Activity																
Inventory Turnover (Days)	86.94	4.50	57.24	5.00	53.27	5.00	57.99	5.00	51.74	5.00	4.37	5.00	3.56	5.00	3.02	5.00
TATO (%)	113.63	4.50	99.26	4.00	103.70	4.00	86.86	3.50	59.95	2.50	59.55	2.50	56.53	2.50	54.84	2.50
Solvency																
Total Equity to Total Assets Ratio (%)	16.20	6.00	15.00	6.00	15.93	6.00	16.75	6.00	30.80	10.00	27.16	7.25	20.72	7.25	20.87	7.25
Total Score		53.5		52.5		56.5		52		51		41.25		45.25		47.25
Average Total Score				53.63								46.19				

Using the Health Indicator Score above, Table 10 below shows the Health Assessment Score of ADHI. Based on the table, even though the average Financial Health Assessment Score decreased, within both periods, the Financial Health Assessment Score of the companies were both classified as “Healthy – Level A”. As per the Decree, a company classified as “Healthy” if the Financial Health Assessment Score was above 65 until 80. But, looking at the average number, (before (2011 – 2014) the GoI decide to boost its infrastructure development), the average Financial Health Assessment Score (76.61) was on the upper level of the Healthy – Level A range of score. After (2011 – 2014) the GoI decide to boost its infrastructure development), the average

Financial Health Assessment Score (65.98) was on the very low level of Healthy – Level A range of score. Even on 2015 and 2016, the Financial Health Assessment Score for those two (2) years period were classified as “Less Healthy – Level BBB”

Table 10 – Health Assessment Score of ADHI
Source: Annual Reports 2011 – 2018 calculated by MS Excel 2016

Period	Year	Total Score	Total Weight	Level	Category	Average	Changes
Before	2011	53.50	76.43	A	Healthy	76.61	-13.87%
	2012	52.50	75.00	A	Healthy		
	2013	56.50	80.71	AA	Healthy		
	2014	52.00	74.29	A	Healthy		
After	2015	51.00	72.86	A	Healthy	65.98	
	2016	41.25	58.93	BBB	Less Healthy		
	2017	45.25	64.64	BBB	Less Healthy		
	2018	47.25	67.50	A	Healthy		

PTPP, Table 11 below shows the Health Indicator Score of PTPP. Based on the table, the average Total Indicator Score for PTPP (before (2011 – 2014) and after (2015 – 2018) the GoI decide to boost its infrastructure development) were decreased by 1.55% on average (average Total Indicator Score of 56.31 before to become average Total Indicator Score of 55.44 after). Even though it was decreasing, the changes was not significant.

Table 11 – Health Indicator Score of ADHI
Source: Annual Reports 2011 – 2018 calculated by MS Excel 2016

Indicators	Before								After							
	2011		2012		2013		2014		2015		2016		2017		2018	
	Ratio	Score	Ratio	Score	Ratio	Score	Ratio	Score	Ratio	Score	Ratio	Score	Ratio	Score		
Profitability																
ROI (%)	9.24	7.50	9.13	7.50	9.31	7.50	10.52	9.00	11.94	9.00	10.07	7.50	11.24	9.00	9.96	7.50
ROE (%)	16.85	20.00	18.70	20.00	21.20	20.00	22.26	20.00	16.52	20.00	10.67	14.00	12.10	16.00	12.01	16.00
Liquidity																
Cash Ratio (%)	25.63	4.00	21.60	3.00	27.31	4.00	24.48	3.00	27.22	4.00	57.47	5.00	45.33	5.00	32.60	4.00
Current Ratio (%)	130.24	5.00	135.75	5.00	135.61	5.00	137.68	5.00	138.83	5.00	153.31	5.00	144.48	5.00	141.52	5.00
Collection Period (Days)	58.24	5.00	61.07	4.50	53.55	5.00	67.56	4.50	75.15	4.50	105.92	4.00	110.51	4.00	149.45	3.50
Activity																
Inventory Turnover (Days)	3.48	5.00	4.57	5.00	5.84	5.00	4.24	5.00	4.89	5.00	5.27	5.00	7.54	5.00	4.63	5.00
TATO (%)	90.88	4.00	94.41	4.00	94.97	4.00	88.02	3.50	88.09	3.50	60.84	3.00	59.74	2.50	54.67	2.50
Solvency																
Total Equity to Total Assets Ratio (%)	20.56	7.25	19.36	6.00	15.99	6.00	16.36	6.00	26.76	7.25	34.57	10.00	34.09	10.00	31.05	10.00
Total Score		57.75		55.00		56.50		56.00		58.25		53.5		56.5		53.5
Average Total Score				56.31								55.44				

Using the Health Indicator Score above, Table 12 below shows the Health Assessment Score of PTPP. Based on the table, before (2011 – 2014) and after (2015 – 2018) the GoI decide to boost its infrastructure development, PTPP was categorized as Healthy company during the whole eight (8) years period. However, the level of Healthy itself was decreasing, from Healthy – Level AA to become Healthy – Level A only. As per the Decree, a company classified as “Healthy – Level AA” if the Financial Health Assessment Score was above 80 until 95. While, if the Financial Health Assessment Score was above 65 until 80, it classified as “Healthy – Level A”. Before (2011 – 2014) the GoI decide to boost its infrastructure development, the average Financial Health Assessment Score of PTPP was 80.45. Therefore, it was classified as “Healthy – Level AA”. While for the period after (2015 – 2018) the GoI decide to boost its infrastructure development, the average Financial Health Assessment Score of PTPP was 79.20, therefore, it was classified as “Healthy – Level AA”. It showed that even though the company categorized as “Healthy”, the level of Healthy itself was decreasing, from Healthy – Level AA to become Healthy – Level A.

Table 12 – Health Assessment Score of PTPP
Source: Annual Reports 2011 – 2018 calculated by MS Excel 2016

Period	Year	Total Score	Total Weight	Level	Category	Average	Changes
Before	2011	57.75	82.50	AA	Healthy	80.45	-1.55%
	2012	55.00	78.57	A	Healthy		
	2013	56.50	80.71	AA	Healthy		
	2014	56.00	80.00	A	Healthy		
After	2015	58.25	83.21	AA	Healthy	79.20	
	2016	53.50	76.43	A	Healthy		
	2017	56.50	80.71	AA	Healthy		
	2018	53.50	76.43	A	Healthy		

WSKT, Table 13 below shows the Health Indicator Score of WSKT. Based on the table, the average Total Indicator Score for WSKT (before (2011 – 2014) and after (2015 – 2018) the GoI decide to boost its infrastructure development) were decreased by 10.88% on average (average Total Indicator Score of 56.31 before to become average Total Indicator Score of 50.19 after).

Table 13 – Health Indicator Score of WSKT
Source: Annual Reports 2011 – 2018 calculated by MS Excel 2016

Indicators	Before								After							
	2011		2012		2013		2014		2015		2016		2017		2018	
	Ratio	Score	Ratio	Score	Ratio	Score	Ratio	Score	Ratio	Score	Ratio	Score	Ratio	Score	Ratio	Score
Profitability																
ROI (%)	13.00	10.50	9.71	7.50	10.98	9.00	9.97	7.50	7.50	6.00	6.42	5.00	8.20	6.00	8.28	6.00
ROE (%)	27.73	20.00	12.66	16.00	15.44	20.00	17.59	20.00	10.80	14.00	10.81	14.00	18.46	20.00	15.99	20.00
Liquidity																
Cash Ratio (%)	13.18	2.00	41.27	5.00	20.63	3.00	21.68	3.00	40.33	5.00	33.86	4.00	11.64	2.00	19.09	3.00
Current Ratio (%)	104.20	3.00	147.20	5.00	143.38	5.00	136.18	5.00	132.27	5.00	117.23	4.00	100.23	3.00	117.94	4.00
Collection Period (Days)	48.78	5.00	60.68	4.50	64.45	4.50	81.85	4.50	120.02	3.50	80.45	4.50	15.10	5.00	28.19	5.00
Activity																
Inventory Turnover (Days)	18.82	5.00	19.58	5.00	30.03	5.00	15.19	5.00	14.80	5.00	7.75	5.00	11.05	5.00	7.85	5.00
TATO (%)	147.55	5.00	108.39	4.50	115.69	4.50	86.30	3.50	49.86	2.50	40.91	2.50	48.54	2.50	41.59	2.50
Solvency																
Total Equity to Total Assets Ratio (%)	12.11	6.00	23.99	7.25	27.12	7.25	22.71	7.25	32.02	10.00	27.31	7.25	23.24	7.25	23.22	7.25
Total Score	56.50		54.75		58.25		55.75		51		46.25		50.75		52.75	
Average Total Score	56.31								50.19							

Using the Health Indicator Score above, Table 14 below shows the Health Assessment Score of WSKT. Based on the table, before (2011 – 2014) and after (2015 – 2018) the GoI decide to boost its infrastructure development, WSKT was categorized as Healthy company during the whole eight (8) years period. However, the level of Healthy itself was decreasing, from Healthy – Level AA to become Healthy – Level A. As per the Decree, a company classified as “Healthy – Level AA” if the Financial Health Assessment Score was above 80 until 95. While, if the Financial Health Assessment Score was above 65 until 80, it classified as “Healthy – Level A”. Before (2011 – 2014) the GoI decide to boost its infrastructure development, the average Financial Health Assessment Score of WSKT was 80.45. Therefore, it was classified as “Healthy – Level AA”. While for the period after (2015 – 2018) the GoI decide to boost its infrastructure development, the average Financial Health Assessment Score of WSKT was 71.70, therefore, it was classified as “Healthy – Level AA”. It showed that even though the company categorized as “Healthy”, the level of Healthy itself was decreasing, from Healthy – Level AA to become Healthy – Level A.

Table 14 – Health Assessment Score of WSKT
Source: Annual Reports 2011 – 2018 calculated by MS Excel 2016

Period	Year	Total Score	Total Weight	Level	Category	Average	Changes
Before	2011	56.50	80.71	AA	Healthy	80.45	-10.88%
	2012	54.75	78.21	A	Healthy		
	2013	58.25	83.21	AA	Healthy		
	2014	55.75	79.64	A	Healthy		
After	2015	51.00	72.86	A	Healthy	71.70	
	2016	46.25	66.07	A	Healthy		
	2017	50.75	72.50	A	Healthy		
	2018	52.75	75.36	A	Healthy		

WIKA, Table 15 below shows the Health Indicator Score of WIKA. Based on the table, the average Total Indicator Score for WIKA (before (2011 – 2014) and after (2015 – 2018) the GoI decide to boost its infrastructure development) were decreased by 12.07% on average (average Total Indicator Score of 60.56 before to become average Total Indicator Score of 53.25 after).

Table 15 – Health Indicator Score of WIKA
Source: Annual Reports 2011 – 2018 calculated by MS Excel 2016

Indicators	Before								After							
	2011		2012		2013		2014		2015		2016		2017		2018	
	Ratio	Score	Ratio	Score	Ratio	Score	Ratio	Score	Ratio	Score	Ratio	Score	Ratio	Score	Ratio	Score
Profitability																
ROI (%)	12.41	10.50	12.51	10.50	14.48	12.00	15.34	13.50	14.96	12.00	10.47	7.50	9.34	7.50	8.98	6.00
ROE (%)	17.62	20.00	17.95	20.00	19.35	20.00	15.25	20.00	12.93	16.00	9.46	14.00	9.27	14.00	12.04	16.00
Liquidity																
Cash Ratio (%)	24.27	3.00	22.97	3.00	19.00	3.00	27.15	4.00	24.16	3.00	61.13	5.00	43.32	5.00	49.46	5.00
Current Ratio (%)	113.88	4.00	110.09	4.00	109.53	3.00	111.86	4.00	118.52	4.00	155.81	5.00	134.40	5.00	154.17	5.00
Collection Period (Days)	62.38	4.50	49.53	5.00	45.43	5.00	57.48	5.00	74.55	4.50	87.38	4.50	68.75	4.50	62.68	4.50
Activity																
Inventory Turnover (Days)	8.00	5.00	7.82	5.00	9.44	5.00	13.51	5.00	11.60	5.00	11.55	5.00	20.03	5.00	4.61	5.00
TATO (%)	102.27	4.00	100.41	4.00	108.49	4.50	94.18	4.00	82.96	3.50	56.05	2.50	62.70	3.00	57.11	2.50
Solvency																
Total Equity to Total Assets Ratio (%)	26.67	7.25	25.71	7.25	25.62	7.25	30.65	10.00	27.74	7.25	40.52	9.00	32.03	10.00	29.07	7.25
Total Score	58.25		58.75		59.75		65.50		55.25		52.5		54		51.25	
Average Total Score	60.56								53.25							

Using the Health Indicator Score above, Table 16 below shows the Health Assessment Score of WIKA. Based on the table, before (2011 – 2014) and after (2015 – 2018) the GoI decide to boost its infrastructure development, WIKA was categorized as Healthy company during the whole eight (8) years period. However, the level of Healthy itself was decreasing, from Healthy – Level AA to become Healthy – Level A. As per the Decree, a company classified as “Healthy – Level AA” if the Financial Health Assessment Score was above 80 until 95. While, if the Financial Health Assessment Score was above 65 until 80, it classified as “Healthy – Level A”. Before (2011 – 2014) the GoI decide to boost its infrastructure development, the average Financial Health Assessment Score of WIKA was 86.52. Therefore, it was classified as “Healthy – Level AA”. While for the period after (2015 – 2018) the GoI decide to boost its infrastructure development, the average Financial Health Assessment Score of WIKA was 76.07, therefore, it was classified as “Healthy – Level AA”. It showed that even though the company categorized as “Healthy”, the level of Healthy itself was decreasing, from Healthy – Level AA to become Healthy – Level A.

Table 16 – Health Assessment Score of WIKA
Source: Annual Reports 2011 – 2018 calculated by MS Excel 2016

Period	Year	Total Score	Total Weight	Level	Category	Average	Changes
Before	2011	58.25	83.21	AA	Healthy	86.52	-12.07%
	2012	58.75	83.93	AA	Healthy		
	2013	59.75	85.36	AA	Healthy		
	2014	65.50	93.57	AA	Healthy		
After	2015	55.25	78.93	A	Healthy	76.07	
	2016	52.50	75.00	A	Healthy		
	2017	54.00	77.14	A	Healthy		
	2018	51.25	73.21	A	Healthy		

V. VALIDATING TESTING

In order to know whether the difference in were significant or not before (2011 – 2014) and after (2015 – 2018) the GoI decide to boost its infrastructure development upon the financial performance and health assessment of the SOE construction companies, paired t-test analysis conducted. Paired t-test conducted upon the eight (8) financial ratios and the Financial Health Assessment score of the SOE construction companies.

Table 17 – Paired t-test result
Source: Annual Reports 2011 – 2018 calculated by MS Excel 2016

Indicators	Period	ADHI	PTPP	WSKT	WIKI	Means	Std Deviation	Paired T-Test Result	Alpha	Paired T-Test Result
Average ROI (%)	Before	9.09	9.55	10.92	13.69	10.81	2.07	0.18230	0.05	Ho Accepted
	After	6.76	10.80	7.60	10.94	9.03	2.16			
Average ROE (%)	Before	20.35	19.75	18.35	17.54	19.00	1.28	0.01837	0.05	Ho Rejected
	After	8.47	12.82	14.02	10.92	11.56	2.42			
Average Cash Ratio (%)	Before	17.17	24.76	24.19	23.35	22.36	3.51	0.05432	0.05	Ho Accepted
	After	28.10	40.66	26.23	44.52	34.88	9.07			
Average Current Ratio (%)	Before	127.00	134.82	132.74	111.34	126.48	10.62	0.40296	0.05	Ho Accepted
	After	140.05	144.54	116.92	140.72	135.56	12.58			
Average Collection Period (Days)	Before	64.62	60.11	63.94	53.71	60.59	5.00	0.14730	0.05	Ho Accepted
	After	82.81	110.26	60.94	73.34	81.84	20.96			
Average Inventory Turnover (Days)	Before	63.86	4.53	20.90	9.69	24.75	26.96	0.32510	0.05	Ho Accepted
	After	15.67	5.58	10.36	11.95	10.89	4.18			
Average TATO (%)	Before	100.86	92.07	114.48	101.34	102.19	9.24	0.01741	0.05	Ho Rejected
	After	57.72	65.83	45.22	64.71	58.37	9.47			
Average Total Equity to Total Assets Ratio	Before	15.97	18.07	21.48	27.16	20.67	4.89	0.02719	0.05	Ho Rejected
	After	24.89	31.62	26.45	32.34	28.82	3.71			
Average Financial Health	Before	76.61	80.45	80.45	86.52	81.00	4.10	0.03921	0.05	Ho Accepted
	After	65.98	79.20	71.70	76.07	73.24	5.73			

Table 17 above shows the Paired t-test result of the SOE construction companies. Based on the table, the ROE, TATO, TETA, and Financial Health Level presented p values that were lower than alpha, α ($p < \alpha$). Therefore, there were significant difference in ROE, TATO, TETA, and Financial Health Level before (2011 – 2014) and after (2015 – 2018) the GoI decide to boost its infrastructure development. While for the other indicators, as the $p > \alpha$. Means that there were no significant different in average RPI, average Cash Ratio, average Current Ratio, average Collection Period, and average Inventory Turnover before (2011 – 2014) and after (2015 – 2018) the GoI decide to boost its infrastructure development.

VI. LIMITATION

This study provides information that were relevant to the SOE construction companies, the GoI, investors and researchers. From SOE construction company perspective, this research can be used as source of information to improve SOE construction company performance, especially in maximizing the opportunity provided by the focus of the GoI within the Infrastructure. From the perspective of the GoI, the results of this study can help the GoI analyze the impact of its infrastructure spending decision upon the financial health assessment of the SOE construction company. From the perspective of investors, the results of this study can help the investors to analyze the SOE construction company before making decisions to invest on it. For the author, this study is part of the learning process which is expected to increase the knowledge and understanding related to the impact of the GoI's infrastructure spending upon the financial health assessment of the SOE construction company and values of the SOE construction company from the market point of view.

VII. CONCLUSION AND RECOMMENDATION

VII.1 CONCLUSION

This research aimed to measure and analyze the financial performance and health assessment of the SOE construction companies before the infrastructure development boom era (2011-2014 period) and after the infrastructure development boom era (2015-2018 period), using financial ratios measurement set by the Ministry of SOE Decree No. KEP-100/MBU/2002 (Decree). This study also aimed to see how significance the difference of the financial performance, using profitability, liquidity, activity and solvability ratios of SOE construction companies, and the health assessment level before and after the infrastructure development boom in 2014/2015.

Based on the research, comparing the period after the GoI decide to boost its infrastructure development (period of 2015 – 2018) with the period before the GoI decide to boost its infrastructure development, (period of 2011 – 2014), it can concluded as follow:

1. In terms of profitability, the overall profitability performance of SOE construction companies declined. The capability of the SOE construction company in generating value upon its investors decreased over the period. The capability of the SOE construction companies in generating profit upon its investment also decreased over the period.
2. In terms of liquidity, the overall liquidity performance of SOE construction companies increased. The SOE construction companies were better in managing its debt; they have enough short term resources to fulfil its short term liabilities.
3. In terms of activity, the overall activity performance of SOE construction companies relatively decreased. The Collection Period and TATO showed as negative result as the number were decreased. However, the Inventory Turnover is decreased, which is positive result for the SOE construction companies.
4. In terms of solvability, the overall solvability performance of SOE construction companies increased. The total number of equity upon the total number of asset is increasing. Showing that the SOE construction company dependency upon liabilities were getting lower.
5. In terms of healthiness, all the SOE construction companies were still classified as "Healthy". However, looking at the level of healthiness, the level of healthiness were decreased over the period, from "Healthy - sub-category AA" to become "Healthy - sub-category A" only, average Total Weight number of 81.00 to become average Total Weight number of 73.24 only.
6. In terms of how significant the differences were, significant differences identified on ROE, TATO, TETA, and Financial Health Level. While for ROI, Cash Ratio, Current Ratio, Collection Period, and Inventory Turnover, although there were differences, the differences was not considered as significant.

VII.2 RECOMMENDATIONS

Recommendation for the SOE construction company point of view, based on the study, on average, profitability performance (ROE and ROI) and activity performance (Collection Period and TATO) of the SOE construction company were decreased over the period. At the same time, on average, liquidity performance (Cash Ratio and Current Ratio), activity performance (Inventory Turnover) and solvability performance (TETA) were getting better. However, the positive result of the liquidity performance and solvability performance could not balance the negative result of the profitability performance and activity performance. Therefore, the healthiness level of SOE construction company were decreased over the period.

Looking at the high impact of the negative performance of the profitability performance and activity performance of upon the healthiness level of the SOE construction company, the SOE construction company should fix their profitability performance and activity performance in order to increase their healthiness level.

In terms of profitability performance (ROI and ROE), considering that the GoI project could not provide a high yield projects, looking for other projects from private sectors or even projects outside Indonesia can be considered as an alternate option. Especially, with the operational and technical expertise received and exposed by the SOE construction company running the massive infrastructure projects within the last five (5) years period, the SOE construction company can have a better position to compete with other competitor. The target is off course the highest ROI and ROE set by the Decree, which were above 18% and above 15%.

Specific for ROI, there were two fundamental ways to improve ROI. First, it can be improved by increasing the profit margin — by earning more profit per dollar of sales. Second, it can be improved by increasing the investment turnover. In turn, the investment turnover can be increased in either of two ways: (1) by generating more sales volume with the same amount of investment or (2) by reducing the amount of investment required for a given level of sales volume.

In terms of activity performance, Collection Periods, the SOE construction company shall improve it to be even better compare to the period before the GoI decide to boost its infrastructure development. The target is below than 60 days in average. Similar with the recommendation to increase its profitability, in order to achieve it, considering that the GoI project mostly experienced a longer Collection Periods, looking at projects from private sectors is an option for SOE construction company. Or, even projects outside Indonesia with a shorter payment period should be considered as an alternate solution.

Similar with the recommendation to increase the profitability performance (ROI and ROE) and activity performance (Collection Periods), to increase its activity performance, TATO, with the existing TATO rate that shows that the SOE construction company using its asset deficiently, increasing the number of projects to maximize the utilization of its asset to generate more revenue is recommended. Off course, projects from private sectors or even projects outside Indonesia should be considered as an alternate solution.

While for the others, liquidity performance (Cash Ratio and Current Ratio) and solvability performance (TETA), except the activity performance (Inventory Turnover), even though the performance were getting better, the overall number were still need to be increased as the existing number were not the highest one.

Recommendation for the GoI point of view, the GoI may consider involving private construction company and not depending too much on SOE construction company to handle its project. At one point, it may relieve the SOE construction company from such a big burden projects. At another point, it gives a much more competitive environment which at the very end, will push the SOE construction company to perform even better in order to compete with private sector.

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