

Financial Performance Analysis and Evaluation of Pharmaceutical Companies in Indonesia

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The Government of Indonesia (GOI) started to implement the National Health Insurance or Jaminan Kesehatan Nasional (JKN) program on 1st January, 2014 through its Social Insurance Administration Body or BPJS Kesehatan. This program provides health care and social insurance, including monitoring and controlling the prescriptive drug and medicine costs in Indonesia by recommending the pharmaceutical companies to produce and sell generic drugs which have a relatively low price. Generic drugs are recommended as an alternative to the high price of medicines while ninety percent of the raw materials of drugs are still dependent on imports. The Decree No.KEP-100/MBU/2002 issued by Indonesia Ministry of State-Owned Enterprises (SOEs) on June 2002 provides the mandate of evaluating and rating the financial health of SOEs. This study aims to analyze and evaluate the financial health condition of two pharmaceutical SOEs; 1) Kimia Farma; 2) Bio Farma; and two private companies; 1) Kalbe Farma; 2) Darya Varia. The results of investigating the financial ratios: return on equity (ROE), return on investment (ROI), cash ratio, current ratio (CR), collection period (CP), inventory turnover (ITO), total asset turnover (TATO), total equity to total asset (TETA), are then validated by the decree to conclude the financial health condition of them. The data is collected from Audited Financial Reports for the period of 2010-2017. The results show financial health levels were achieved with rank ratings; 1. Kimia Farma; all AA levels; 2. Bio Farma (AAA for the first three years; and AA for the last five years); 3. Kalbe Farma (AAA for the first six years; and AA for the last two years); and 4. Darya Varia; all AA levels.

Key words: *Financial health condition, financial ratios, SOEs, BPJS.*



Introduction

According to “UU No. 40/2004 about Sistem Jaminan Sosial Nasional (SJSN) or National and Social Security System” and “UU No.24/2011 about Badan Penyelenggara Jaminan Sosial (BPJS) or Social Security Agency”, the GOI is obliged to provide social security to all people as a fulfilment of the right for appropriate basic needs. The GOI then regulated and implemented Jaminan Kesehatan Nasional (JKN) or a National Health Security program, which is managed by the Healthcare and Social Security Agency or BPJS Kesehatan. The scheme was previously known as National Insurance (Askes) and Social and Health Security (Jamsostek).

Based on GOI Rule of UU No. 15/2017 National State Budget”, the percentage of health budget is regulated to 5% of the total state budget. Launched in 2014, the JKN program in 2015 received increased allocation of 1.2% and a sharp rise of 28% in 2016. The GOI was committed to allocate the 5% of the health budget regulation and fully support the equal treatment and distribution of health care in Indonesia. In the following years, the GOI maintained state budget stability with only slight change as it adjusted to the regulation. Although WHO (2009) stated that Indonesia’s health budget was one of the lowest in ASEAN countries, the growth development in these five years period show good indication of the GOI’s commitment to achieve Universal Health Coverage (UHC) within the recent JKN program.

BPJS Kesehatan has responsibility to accommodate people with appropriate services for essential health services including drugs and medication. The availability and affordability of prescription drugs requires government support as the price of medication itself in Indonesia is still very expensive compared to other countries (Ariati, N. 2017:231). The use of generic drugs on a large scale by BPJS Kesehatan caused changes in the stability of the pharmaceutical market in Indonesia. The branded drugs that dominated the market previously have been gradually replaced by generic drugs due to the government’s cost effectiveness strategy through the JKN program. Drug reimbursement subsidized the use of generic medications. The list of drugs as mentioned in Kepmenkes No. HK.02.02/MENKES/636/2016 is mostly generic.

According to Situmorang, C. (2017) and Zhang, (2018), the directorate general of pharmaceutical and medical devices states that in 2014 there were 230 pharmaceutical industries and among those, 60 industries supplied 80% of the drugs dispensed and the drug need level increased to 2.5 until it was 3 times higher at around 240 million doses from the current 94 million doses before the implementation of the JKN program. The procurement of the drugs, which focused largely on generic brands meant suppliers of local generic drugs would be the most likely benefactors of current policy development and rules. The demand of generic drugs would dramatically raise along with the increased number of the total JKN program members, especially with the target to cover all levels of society and maintain low

distribution price. Accordingly, the pharmaceutical companies would also get lower margin profit margin and have to shift the marketing of patent branded and generic branded drugs to the consumer with a middle high income. It would become a great challenge for the company to become competitive in the BPJS Kesehatan era and the financial performances of the pharmaceutical companies would surely be affected by it.

This study aims to analyze and evaluate the financial health condition of two pharmaceutical SOEs under the Indonesia Ministry of Health; 1) Kimia Farma (Kimia); 2) Bio Farma (Bio); and two private companies; 1) Kalbe Farma (Kalbe); 2) Darya Varia (Darya). The results of investigating of financial ratios: ROE, ROI, cash ratio, CR, CP, ITO, TATO, TETA, can then be validated by the SOE decree to conclude the financial health condition of the companies. The data was collected from their Audited Financial Reports in 2010-2017.

Development of Pharmaceutical Industry in Indonesia

In 2012, based on the estimated increase in the national pharmaceutical market, there was growing consumption of drugs and other pharmaceutical products in line with the strengthening of the people's purchasing power. The Association of Indonesian Pharmaceutical Companies recorded that the national pharmaceutical market rose in 2012 by 14% to IDR 43.7 trillion compared to IDR 43.08 trillion in 2011 (Kimia, 2011; Zhang, 2017). In 2013, pharmaceutical companies are still dependent on import transaction to meet raw materials, which reached 90% of the need, while the IDR currency increase has affected the industry. In later years, the industry formalized the independency of medicine raw materials, as already proclaimed by the Ministry of Health, given that efficacious medicinal plants that are Indonesian Natural Resources.

The total pharmaceutical market reached IDR 53.81 trillion an increase to 12.93% compared to 2012, in which the domestic industry registered the sales of IDR 39.45 trillion or 73.32% from total market. And the sales of branded medicine reached IDR 48.32 trillion or 89.81%, while the unbranded sales were IDR 5.49 trillion or only 10.19% from the total market (Kimia, 2013). In 2014, the market growth encountered a slowdown, which was only at 4.86% compared with the previous year of 16.27%, due to the adjustment to the National Health Security System proposed by the GOI. This is reflected by the increasing volume of medicine usage, while the value was decreasing. In addition, all industries were facing the weakening of IDR against USD, which later worsened due to increased fuel prices (Kimia, 2014). According to the Central Bureau of Statistic (2016), GDP per capita achieved IDR 45.20 million in 2015, and increase of 8.13% from IDR 41.80 million in 2014.

However, the value in USD decreased due to IDR/USD currency rate depreciation, which impacted significantly on the industry due to high volatility, decelerating trend and moreover

the impact of the exchange rate for IDR 14,000 per USD on the company's Cost of Goods Sold. This was in the context that 95% of active ingredients for medicine production were still imported. Meanwhile, the market was relatively fragmented, indicating there was no single company dominating the industry. Approximately 239 are companies, located in West Java (39%), East Java (20%) and DKI Jakarta (15%). The top five are Kalbe, Sanbe, Soho, Pharos, and Dexa Medica with total market share of approximately 14%. (Kimia, 2015).

Previous Research on Financial Performance

Financial ratio analysis (FRA) is a good evaluation method to measure company performance (Megaladevi, 2015). A company usually uses this method to compare their performance with competitors. Based on the study in Oman Commercial Banks, financial performance has relationship with asset management, size and operational efficiency. There are two methods to measure financial performance which are accounting and market measurement. There are many researchers who prefer to use accounting measurement (Waddock and Graves 1997; Cochran and Wood 1984), rather than market measurement (Alexander and Buchholz, 1978; Vance, S. C., 1975), and some of them adopt both methods (McGuire, J. B., Sundgren, A., Schneeweis, T., 1988). FRA has been applied to state owned enterprises in Indonesia, which operates in the coal mining industry and oil and gas industry (Daryanto, W.M and Nurfadilah,D, 2018).

Daryanto, W.M's (2018) study was also conducted in the context of the cement and aviation industry in Indonesia. Although accounting data in financial statements is subject to manipulation and financial statements retrospectively, they are the only detailed information available on the company's overall activities (Sinkey, 2002). Furthermore, they are the only source of information for evaluating management's potential to generate satisfactory future returns (Kumbirai, M & Webb, R, 2010). This method is usually employed by companies to compare their performances against competitors. A number of empirical studies on financial ratio of different industries can be found and studied (Tarawneh, 2006; Halkos and Salamouris, 2004). Regarding the banking industry, financial ratio analysis has been applied to evaluate, examine, and rank companies based on performance (Tarawneh, 2006). A study of Oman Commercial Bank showed that financial performance had a relationship with asset management, size, and operational efficiency. Daryanto, W.M & Samidi, S (2018) conducted the study of financial health condition for SOEs of Energy and Mineral Resources.

The Decree of Ministry of State Owned Enterprises (SOEs)

Based on the Decree of Ministry SOEs No. KEP-100/MBU/2002 regarding financial health assessment of SOEs, the growth of business should be supported by good infrastructure and evaluation system to measure the efficiency and level of competition among SOEs. This financial evaluation applies to all SOEs in the financial and non-financial industry. In non-

financial industry, they are divided into infrastructure and non-infrastructure. The method consists of three aspects which are financial, operational, and administration. From the financial aspect, total weight score for infrastructure is 50 and non-infrastructure is 70, which consists of eight indicators; ROE, ROI, cash ratio, CR, CP, ITO, TATO, TETA, with scores of 20, 15, 5, 5, 5, 5, 5, and 10 respectively.

Methodology

Descriptive financial ratio was used in this study. All variables used are ratio measurement scales taken from the decree. The data was collected from the companies Audited Financial Reports for the period 2010-2017. The above decree was used to validate the financial health condition level of these companies whether in the levels of very healthy (AAA, AA, A), or healthy (BBB, BB, B), or unhealthy (CCC, CC, C). A AAA is achieved if the score is more than 95 points; AA, if it is more than 80 and less than 95; and A if it is more than 65 and less than 80. A BBB is achieved if the score is more than 50 and less than 65; BB if it is more than 40 and less than 50; and B if it is more than 30 and less than 40. A CCC is achieved if the score is more than 20 and less than 30; CC if it is more than 10 and less than 20; and C if it is less than 10.

The selection of the FRA method for this study was motivated by the limited availability of literature focused on the pharmaceutical industry in Indonesia. FRA can be used to identify a company's specific strengths and weaknesses as well as providing detailed information about company profitability, liquidity, activity and solvency (Hempel *et al*, 1994; Dietrich, 1996). Although accounting data is subject to manipulation and financial statements are retrospective, they are the only detailed information available on the company's overall activities (Sinkey, 2002). They are the only source of information for evaluating management's potential to generate satisfactory future returns (Kumbirai, M & Webb, R. 2010). Lan (2012) stated that ratio analysis is one of the most widely used fundamental analysis techniques. FRA is a tool that was developed to perform quantitative analysis. Ratios help link the three types of financial statements together and offer figures that are comparable between companies and across industries and sectors. Daryanto, W.M (2017, 2018) carried out the same study in Indonesia for SOEs of palm oil, cement, aviation, construction, oil and gas, transportation, mining; and Pratama, S (2017) for SOE in telecommunications.

Profitability Performance

Profitability is the most common measure for a company's financial performance.

$$\text{Return on Equity (ROE)} = (\text{Net Income} / \text{Shareholder's Equity}) \times 100 \%$$

Table 1: List of ROE and ROI Assessment Score

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
9,0 < ROE ≤ 11	14	12 < ROI ≤ 13	10,5
7,9 < ROE ≤ 9	12	10,5 < ROI ≤ 12	9
6,6 < ROE ≤ 7,9	10	9 < ROI ≤ 10,5	7,5
5,3 < ROE ≤ 6,6	8,5	7 < ROI ≤ 9	6
4,0 < ROE ≤ 5,3	7	5 < ROI ≤ 7	5
2,5 < ROE ≤ 4	5,5	3 < ROI ≤ 5	4
1,0 < ROE ≤ 2,5	4	1 < ROI ≤ 3	3
0 < ROE ≤ 1	2	0 < ROI ≤ 1	2
ROE < 0	0	ROI < 0	1

Source: The decree of Ministry of SOE No. KEP-100/MBU/2002.

ROE measures how efficiently a company can use the money from shareholders to generate profits and growth of the company (Anthony, 2011). Table 1 shows the ROE and ROI Assessment Score. ROI is a profitability ratio that calculates the profits of an investment as a percentage of the investment.

Liquidity Performance

$$\text{Cash Ratio} = (\text{Cash} + \text{cash equivalents} / \text{Current Liabilities}) \times 100 \%$$

Liquidity performance measures the company ability to pay its short-term debt. If the company has cash ratio equal to one, it indicates that that company has the same amount of cash as its debt. If the value of cash ratio is more than 1, it indicates that company has more cash to pay its debt. However, if the value is less than 1, it indicates that company has less cash to pay its debt. It measures the company ability to repay its current liability with current assets. If the company has current ratio below 1, it indicates that company has a problem with its short-term debt. If the company has too high a current ratio, it indicates the company has a problem in managing their current asset. Table 2 shows the Cash Ratio and CR Assessment Score.

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

Table 2: List of Cash Ratio and CR Assessment Score.

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

Source: The decree of Ministry of SOE No. KEP-100/MBU/2002.

Activity Performance

$$\text{Collection Period} = (\text{Average Accounts Receivables/Sales Revenue}) \times 365 \text{ days}$$

This ratio is an important indicator for a company to monitor their cash flow and company ability to pay its debt by the due date.

$$\text{Inventory Turnover} = \text{Cost of goods sold} / \text{Average Inventory}$$

This ratio measures how many times the inventory is being sold at a certain period of time. Table 3 shows the CP and ITO.

Table 3: List of Collection Period and Inventory Turnover Assessment Score.

Collection Period (CP in days)	Adjustment (days)	Score	Inventory Turnover (IT in days)	Adjustment (days)	Score
$CP \leq 60$	$CP > 35$	5	$IT \leq 60$	$IT > 35$	5
$60 < CP \leq 90$	$30 < CP \leq 35$	4.5	$60 < IT \leq 90$	$30 < IT \leq 35$	4.5
$90 < CP \leq 120$	$25 < CP \leq 30$	4	$90 < IT \leq 120$	$25 < IT \leq 30$	4
$120 < CP \leq 150$	$20 < CP \leq 25$	3.5	$120 < IT \leq 150$	$20 < IT \leq 25$	3.5
$120 < CP \leq 150$	$15 < CP \leq 20$	3	$150 < IT \leq 180$	$15 < IT \leq 20$	3
$150 < CP \leq 180$	$10 < CP \leq 15$	2.4	$180 < IT \leq 210$	$10 < IT \leq 15$	2.4
$180 < CP \leq 210$	$6 < CP \leq 10$	1.8	$210 < IT \leq 240$	$6 < IT \leq 10$	1.8
$219 < CP \leq 240$	$3 < IT \leq 6$	1.2	$240 < IT \leq 270$	$3 < IT \leq 6$	1.2
			$270 < IT \leq 300$	$1 < IT \leq 3$	0.6

Source: The decree of Ministry of SOE No. KEP-100/MBU/2002

$$\text{Total Asset Turn Over (TATO)} = (\text{Revenue/Capital Employed}) \times 100 \%$$

This ratio measures the company ability to measure efficiency to use its asset to generate sales. Table 4 shows the TATO Score.

Table 4: List of Total Asset Turn-over Assessment Score

TATO (%)	Adjustment (days)	Score
TATO > 120	TATO > 20	5
105 < TATO ≤ 120	15 < TATO ≤ 20	4,5
90 < TATO ≤ 105	10 < TATO ≤ 15	4
75 < TATO ≤ 90	5 < TATO ≤ 10	3,5
60 < TATO ≤ 75	0 < TATO ≤ 5	3
40 < TATO ≤ 60	TATO ≤ 10	2,5
20 < TATO ≤ 40		2
TATO ≤ 20		1,2

Source: The decree of Ministry of SOE No. KEP-100/MBU/2002.

Solvency Performance

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

If the company has less value, this indicates that the company funding its asset inefficiently, or it has very low net value for investors. Table 5 shows the List of Solvency Assessment Score.

Table 5: List of Solvency Assessment Score

Total Equity to Total Asset (%)	Score
TETA < 0	0
0 ≤ TETA < 10	4
10 ≤ TETA < 20	6
20 ≤ TETA < 30	7,25
30 ≤ TETA < 40	10
40 ≤ TETA < 50	9
50 ≤ TETA < 60	8,5
60 ≤ TETA < 70	8
70 ≤ TETA < 80	7,5
80 ≤ TETA < 90	7
90 ≤ TETA < 100	6,5

Source: The decree of Ministry of SOE No. KEP-100/MBU/2002

Results and Discussion

Profitability Analysis

Table 6 shows that the capability of Kimia in generating earning in the period 2010-2017 decreased. The percentage changes of ROI were 37.45%, 43.17%, 42.11%, 36.29%, 33.14%, 30.76%, 27.29% and 25.86%, respectively. The ROI increased about 6% from 2010 to 2011, but it decreased significantly from 2012 to 2017, or 42.11% to 25.86%. The gradual decreased of ROI was in line with the increased growth in capital investment, in which the company was committed to expand their business by building new clinics, ingredient plants, production plants and developing new drug products to support JKN program in the last six years. Meanwhile, the profit which was generated from generic products was relatively low. However, all ROI ratios were above the minimum standard of the Decree, which is 18%. While the percentage changes of ROE were 12.45%, 13.71%, 14.27%, 13.06%, 12.91%, 11.96%, and 12.89%, which were below the minimum standard of the Decree, which is 15%.

Table 6: Test Results for Kimia

INDICATORS	2010		2011		2012		2013		2014		2015		2016		2017	
	RATIO	SCORE	RATIO	SCORE	RATIO	SCORE	RATIO	SCORE	RATIO	SCORE	RATIO	SCORE	RATIO	SCORE	RATIO	SCORE
ROI	37.45%	15	43.17%	15	42.11%	15	36.29%	15	33.14%	15	30.76%	15	27.29%	15	25.86%	15
ROE	12.45%	16	13.71%	18	14.27%	18	13.28%	18	13.06%	18	12.91%	16	11.96%	16	12.89%	16
CASH RATIO	56%	5	43%	5	59%	5	53%	5	67%	5	42%	5	38%	5	42%	5
CURRENT RATIO	280%	5	243%	5	239%	5	192%	5	171%	5	155%	5	280%	5	243%	5
COLLECTION PERIOD	39	5	47	5	42	5	43	5	56	5	52	5	39	5	47	5
INV. TURN OVER	52	5	54	5	55	5	56	5	61	4.5	71	4.5	52	5	54	5
TATO	255.92%	5	254.56%	5	229.49%	5	220.35%	5	187.58%	5	176.54%	5	161.17%	5	139.00%	5
SOLVENCY	67.22%	8	69.81%	8	69.43%	8	65.71%	8	61.02%	8	59.87%	8.5	49.24%	9	42.20%	9
TOTAL		64.00		66.00		66.00		66.00		66.00		64.50		64.50		64.50

Table 7 shows the capability of Bio in generating earning in the period from 2010-2017 increased significantly. The percentage changes of ROI were 76.96%, 99.22%, 97.15%, 87.79%, 79.71%, 84.06%, 86.78%, and 89.87% respectively, which were far above the standard of the Decree of 18%. The company benefitted from export sales, while the percentage changes of ROE were 30.00%, 34.70%, 29.36%, 37.81%, 31.93%, 17.14%, 12.47%, and 12.97%. It decreased about 57% from 2010 to 2017. The minimum standard of the Decree for ROE is 15%, therefore the ROE ratios were above the standard for 2010-2015, while for 2016-2017 the ratios were below the standard.

Table 7: Test Results for Bio

INDICATORS	2010		2011		2012		2013		2014		2015		2016		2017	
	RATIO	SCORE	RATIO	SCORE	RATIO	SCORE	RATIO	SCORE	RATIO	SCORE	RATIO	SCORE	RATIO	SCORE	RATIO	SCORE
ROI	76.96%	15	99.22%	15	97.15%	15	87.79%	15	79.71%	15	84.06%	15	86.78%	15	89.87%	15
ROE	30.00%	20	34.70%	20	29.36%	20	37.81%	20	31.93%	20	17.14%	20	12.47%	16	12.97%	16
CASH RATIO	182%	5	168%	5	252%	5	229%	5	286%	5	122%	5	99%	5	64%	5
CURRENT RATIO	352%	5	369%	5	523%	5	396%	5	537%	5	437%	5	408%	5	339%	5
COLLECTION PERIOD	46	5	41	5	56	5	57	5	46	5	79	4.5	46	5	38	5
INV. TURN OVER	54	5	45	5	41	5	40	5	58	5	72	4.5	112	4	86	4.5
TATO	131.89%	5	158.12%	5	135.54%	5	117.55%	4.5	108.71%	4.5	113.05%	4.5	120.34%	5	146.53%	5
SOLVENCY	77.63%	7.5	85.27%	7	88.31%	7	83.80%	7	83.57%	7	88.79%	7	89.53%	7	87.60%	7
TOTAL		67.50		67.00		67.00		66.50		66.50		65.50		62.00		62.50

Table 8 shows the capability of Kalbe in generating earning in 2010-2017 decreased slightly. The percentage changes of ROI were 54.36%, 51.33%, 51.13%, 49.78%, 51.26%, 49.45%, 51.08%, and 53%, respectively. And all the ratios were far above the minimum standard of 18% of the Decree. While the percentage changes of ROE were 23.28%, 23.37%, 24.08%, 23.24%, 21.74%, 18.81%, 18.86%, and 17.66%, it decreased about 24% from 2010 to 2017. However, the ratios were still above the minimum standard of 15% of the Decree. The slow growth in sales resulted in the dramatic decline of ROE in general. This was influenced by the JKN program and the GOI regulation in controlling the highest retail price of the drugs on the market, so that a private company like Kalbe also faced a challenge in maintaining the escalated price of imported raw material. Meanwhile, the profit which generated from the generic drugs sales was relatively low, which affected its profitability ratio.

Table 8: Test Results for Kalbe

INDICATORS	2010		2011		2012		2013		2014		2015		2016		2017	
	RATIO	SCORE	RATIO	SCORE	RATIO	SCORE	RATIO	SCORE	RATIO	SCORE	RATIO	SCORE	RATIO	SCORE	RATIO	SCORE
ROI	54.36%	15	51.33%	15	51.13%	15	49.78%	15	51.26%	15	49.45%	15	51.08%	15	53.00%	15
ROE	23.28%	20	23.37%	20	24.08%	20	23.24%	20	21.74%	20	18.81%	20	18.86%	20	17.66%	20
CASH RATIO	166%	5	141%	5	98%	5	54%	5	79%	5	115%	5	125%	5	125%	5
CURRENT RATIO	439%	5	365%	5	341%	5	284%	5	340%	5	370%	5	413%	5	451%	5
COLLECTION PERIOD	49	5	55	5	52	5	52	5	52	5	50	5	51	5	54	5
INV. TURN OVER	55	5	57	5	57	5	70	4.5	65	4.5	61	4.5	63	4.5	64	4.5
TATO	188.43%	5	170.12%	5	190.37%	5	190.64%	5	192.24%	5	183.31%	5	181.57%	5	179.02%	5
SOLVENCY	82.07%	7.0	78.75%	7.5	78.27%	7.5	74.91%	7.5	78.49%	7.5	79.86%	7.5	81.86%	7	83.62%	7
TOTAL		67.00		67.50		67.50		67.00		67.00		67.00		66.50		66.50

Table 9 shows the capability of Darya in generating earnings in the period 2010-2017 decreased slightly. The percentage changes of ROI were 40.51%, 41.12%, 41.70%, 37.20%, 31.00%, 32.27%, 40.60%, and 39.70%. Nevertheless, the deterioration of these ratios did not suggest poor financial performance because the trend still gives the company

a positive yet decreasing return. Moreover, the ratios were far above the minimum standard of the Decree, which is 18%. While the percentage changes of ROE were 17.31%, 16.61%, 17.69%, 13.98%, 8.61%, 11.08%, 14.09% and 14.53%, it decreased about 17.6% from 2010 to 2017. But the lowest ROE was 8.61% in 2014. The minimum standard of the Decree for ROE is 15%, therefore the ROE ratios were above the standard for the period 2010-2012. While the ratios were below the standard for 2003-2017. The sudden drop of ROI and ROE in 2013 to 2014 were influenced by the weakening of IDR exchange rate in 2013, since the ingredient of the drugs were mostly imported. In 2015 to 2017 the company began to recover as the sales of generic products increased with the JKN program implementation (Darya, 2013-2017).

Table 9: Test Results for Darya

INDICATORS	2010		2011		2012		2013		2014		2015		2016		2017	
	RATIO	SCORE	RATIO	SCORE	RATIO	SCORE	RATIO	SCORE	RATIO	SCORE	RATIO	SCORE	RATIO	SCORE	RATIO	SCORE
ROI	40.51%	15	41.12%	15	41.70%	15	37.20%	15	31.00%	15	32.27%	15	40.60%	15	39.70%	15
ROE	17.31%	20	16.61%	20	17.69%	20	13.98%	18	8.61%	12	11.08%	16	14.09%	18	14.53%	18
CASH RATIO	146%	5	180%	5	153%	5	144%	5	171%	5	143%	5	99%	5	102%	5
CURRENT RATIO	376%	5	489%	5	431%	5	415%	5	491%	5	352%	5	285%	5	266%	5
COLLECTION PERIOD	115	4	126	3.5	131	3.5	125	3.5	116	4	111	4	116	4	111	4
INV. TURN OVER	38	5	48	5	45	5	68	4.5	75	4.5	56	5	53	5	47	5
TATO	137.33%	5	123.51%	5	126.97%	5	115.72%	4.5	113.31%	4.5	116.82%	4.5	128.81%	5	126.57%	5
SOLVENCY	75.52%	7.5	78.87%	7.5	78.31%	7.5	75.27%	7.5	76.33%	7.5	70.74%	7.5	70.50%	7.5	68.03%	8
TOTAL		66.50		66.00		66.00		63.00		57.50		62.00		64.50		65.00

Liquidity Analysis

Table 6 displays the CR of Kimia in 2010-2017, which were 243%, 275%, 280%, 243%, 239%, 192%, 171%, and 155% respectively. Overall, CR increased in the period 2010-2014, and decreased slightly from 2015-2017. Nevertheless, the drop occurred in CRs 2014 did not merely show poor condition of the company as the drop remained above the lowest level of the ratio. CRs of Kimia were above 100% which indicates that the company's financial health was good in the short term. With its total current asset greater than its total current liabilities, there should not be doubt that the company was able to pay off its short-term obligation, or that it was liquid. All CRs were above the minimum standard of the Decree, which is 125%.

Table 7 displays CR of Bio in 2010-2017, which were 352%, 369%, 523%, 396%, 537%, 437%, 408%, 451%, and 339% respectively. Overall, CRs increased in 2010-2012, and decreased slightly in 2013, but increased again in 2014, and decreased slightly in 2015 to 2017. Nevertheless, the drop which occurred in CRs in 2015 did not merely show poor condition of the company as the drop remained above the lowest level of the ratio. Liquidity ratios of Bio were above 100% which shows that the company's financial health was good

in the short term. With its total current asset greater than its total current liability, there should not be doubt that the company was able to pay off its short-term obligation. All CRs were above the minimum standard of the Decree, which is 125%.

Table 8 displays CRs of Kalbe in 2010-2017, which were 439%, 365%, 341%, 284%, 340%, 370%, 413% and 451% respectively. Overall, CRs were highly stable and above 125% which shows that the company's financial health was good in the short term. With its total current asset greater than its total current liability, there should be no doubt that the company was able to pay off its short-term obligation.

Table 9 displays CRs of Darya in 2010-2017, which were 376%, 489%, 431%, 415%, 491%, 352%, 285% and 266% respectively. Overall, CRs were highly stable in 2010 to 2015, and decreased slightly in 2016-2017. CRs of Darya were above 125% as the minimum standard of the Decree. It shows that company's financial health was good in the short term. With its total current asset greater than its total current liability, there should be no doubt that the company was able to pay off its short-term obligation.

Activity Analysis

Table 6 shows TATO ratios of Kimia in 2010-2017, which were 255.92%, 254.56%, 229.49%, 220.35%, 187.58%, 176.54%, and 139% respectively. The ratios were quite stable in 2010-2013, but decreased slightly in 2015-2017. This indicates that the company encountered less efficiency of its assets in generating revenue during the last three years. However, TATO ratios were still above the minimum standard of 120% of the Decree, or Kimia were very efficient.

Table 7 shows TATO ratios of Bio in 2010-2017, which were 131.89%, 158.12%, 135.54%, 117.55%, 108.71%, 113.05% and 146.53%. The ratios fluctuated but were still above standard of the Decree of 120% in 2010-12, and 2017, except for 2013-2016. Overall, Bio was efficient in utilizing its assets.

Table 8 shows TATO ratios of Kalbe in 2010-2017, which were 188.43%, 170.12%, 190.37%, 190.64%, 192.24%, 183.31 and 179.02%. The ratios were quite stable. This indicates that the company was very efficient in utilization of its assets for generating revenue. The TATO ratios were above the minimum standard of the Decree, which is 120%.

Table 9 shows TATO ratios of Darya for 2010-2017, which were 137.33%, 123.51%, 126.97%, 115.72%, 113.31%, 116.82%, 128.81% and 126.57%. The ratios were quite stable in 2010-2017, and this indicates that the company was very efficient in utilization of

its assets for generating revenue. The TATO ratios were above the minimum standard of the Decree, which is 120%.

Solvency Analysis

Table 6 shows solvency ratios of Kimia, the TETA ratios in 2010-2017, which were 67.22%, 69.81%, 69.43%, 65.71%, 61.02%, 59.87%, 49.24%, and 42.20% which shows the fluctuation of the ratios. The increase of the ratios indicates higher proportion of assets funded by investors. This situation implies more financial stability of the company. In fact, nearly 50 to 60% of all assets was financially contributed by investors in the last eight years. The fall in TETA ratio indicates decreasing proportion of assets contributed by investors, but does not necessarily define poor financial flexibility as the ratios still generate nearly 30-40% as required by the Decree. The decreasing TETA ratio implies increasing adoption of debt to finance the company.

Table 7 shows solvency ratios of Bio, the TETA ratios in 2010-2017, which were 77.63%, 85.27%, 88.31%, 83.80%, 83.57%, 88.75%, 89.53% and 87.60% and this shows the fluctuation of the ratios. The increase of the ratios indicates higher proportion of assets funded by the investors. This situation implies more financial stability of the company. In fact, nearly 70 to 90 % of all assets were financially contributed by investors. The fall in TETA ratio indicates decreasing proportion of assets contributed by the investors, but does not necessarily define poor financial flexibility as the ratio still generated a high number. The decreasing TETA ratio implies increasing adoption of debt to finance the company.

Table 8 shows solvency ratios of Bio, the TETA ratios in 2010-2017, which were 82.07%, 78.75%, 78.27%, 74.91%, 78.49%, 79.86%, 81.86% and 83.62%. It shows the stability of the ratios. The increase of the ratios indicates higher proportion of assets funded by the investors. This situation implies more financially stable of the company. In fact, nearly 70 to 80 % of all assets were financially contributed by the investors. The fall in TETA ratio indicates decreasing proportion of assets contributed by the investors, but does not necessarily define poor financial flexibility as the ratios were still high in number. The decreasing TETA ratio implies increasing adoption of debt to finance the company.

Table 9 shows solvency ratios of Darya, the TETA ratios in 2010-2017, which were 75.52%, 78.875, 78.31%, 75.27%, 76.33%, 70.74%, 70.50% and 68.03% and shows slight fluctuation of the ratios. The increase of the ratios indicates a higher proportion of assets funded by investors. This situation implies more financial stability of the company. In fact, nearly 70 to 80 % of all its assets were financially contributed by investors in the last eight years. The fall in TETA ratio indicates decreasing proportion of assets contributed by

investors, but does not necessarily define poor financial flexibility as the ratio still generates a high number. The decreasing TETA ratio implies increasing adoption of debt to finance the company.

Validation Testing

In order to examine the level of financial health for the four companies in 2010-2017, the SOE decree is employed to test the validation. Table 10 shows the test results during 2011 to 2015 of Kimia. Overall, there was stable trend in the total score during 2010 to 2017, which ranged from 64 in 2010 to 64.50 in 2017. Next, the total score was converted into the total weight using the formula total score/weight multiplied by 100. Finally, the result is shown in table 10, which shows healthy category during the period, or AA level respectively.

Table 10: Summary of Test Results for Kimia

Year	Total Score	Total Weight	Value	Level	Category
2010	64.00	91.43	80<TS≤95	AA	Healthy
2011	66.00	94.29	80<TS≤95	AA	Healthy
2012	66.00	94.29	80<TS≤95	AA	Healthy
2013	66.00	94.29	80<TS≤95	AA	Healthy
2014	66.00	94.29	80<TS≤95	AA	Healthy
2015	64.50	92.14	80<TS≤95	AA	Healthy
2016	64.50	92.14	80<TS≤95	AA	Healthy
2017	64.50	92.14	80<TS≤95	AA	Healthy

The same validation method for Kimia is also applied for Bio, Kalbe, and Darya. The results are shown in Tables 11, 12, and 13, respectively.

Table 11: Summary of Test Results for Bio

Year	Total Score	Total Weight	Value	Level	Category
2010	67.50	96.43	>95	AAA	Healthy
2011	67.00	95.71	>95	AAA	Healthy
2012	67.00	95.71	>95	AAA	Healthy
2013	66.50	95.00	80<TS≤95	AA	Healthy
2014	66.50	95.00	80<TS≤95	AA	Healthy
2015	65.50	93.57	80<TS≤95	AA	Healthy
2016	62.00	88.57	80<TS≤95	AA	Healthy
2017	62.50	89.29	80<TS≤95	AA	Healthy

Table 12: Summary of Test Results for Kalbe

Year	Total Score	Total Weight	Value	Level	Category
2010	67.00	95.71	>95	AAA	Healthy
2011	67.50	96.43	>95	AAA	Healthy
2012	67.50	96.43	>95	AAA	Healthy
2013	67.00	95.71	>95	AAA	Healthy
2014	67.00	95.71	>95	AAA	Healthy
2015	67.00	95.71	>95	AAA	Healthy
2016	66.50	95.00	80<TS≤95	AA	Healthy
2017	66.50	95.00	80<TS≤95	AA	Healthy

Table 13: Summary of Test Results for Darya

Year	Total Score	Total Weight	Value	Level	Category
2010	66.50	95.00	80<TS≤95	AA	Healthy
2011	66.00	94.29	80<TS≤95	AA	Healthy
2012	66.00	94.29	80<TS≤95	AA	Healthy
2013	63.00	90.00	80<TS≤95	AA	Healthy
2014	57.50	82.14	80<TS≤95	AA	Healthy
2015	62.00	88.57	80<TS≤95	AA	Healthy
2016	64.50	92.14	80<TS≤95	AA	Healthy
2017	65.00	92.86	80<TS≤95	AA	Healthy

Limitation

This study has added to the literature about financial performance in the real working world. In the future, it is suggested to carry out this research with other companies from pharmaceutical industry to get a more general result. Since the focus in this research is on one industry, it is worthwhile to explore this on a wider scale and find out if investigation of different company yields the same result. In addition, the study focuses on financial aspects only.

Conclusion and Recommendations

The study results indicate that the four companies had stable financial performance in 2010-2017. Overall, Kimia showed a steady performance with minor decline, though in regards of profitability, liquidity and solvency performances, it was still far below Bio. The result shows that the four companies have achieved financial health condition levels based on the SOE Decree, with rank ratings during 2010-2017 : 1). Kimia; all AA levels; 2). Bio; AAA for the first three years; and AA for the last five years; 3). Kalbe; AAA for the first six years; and AA for the last two years; and 4). Darya; all AA levels. Both SOEs and private companies were successful in managing their business. It is recommended, although the sales growths of the companies after the implementation of the JKN program were relatively slowed down, that the potential market in the future will continue expanding as it reaches all socio-economic levels of the Indonesian population.

The potential profit generated from supplying generic products is promising and it will be good for a company to get more exposure in domestic market. The companies need to find an alternate way to shift the use of raw material that is mostly imported to outwit the low margin of generic product sales and stay competitive in the market. However, it was proven that the four companies supported the JKN program of developing excellent service in the pharmaceutical industry. This study has added to the knowledge base in the financial literature



specific to this field. It also gives a strong insight for managers in the pharmaceutical industry with regards to financial performance.

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