

FINANCIAL RATIO AND PERFORMANCE ANALYSIS JOURNAL: CASE STUDY IN PT. CHAROEN POKPHAND INDONESIA TBK FOR THE PERIOD OF 2016-2020

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ABSTRACT

In 2020, Indonesian poultry demand was lower than presumed, which makes an oversupply of chickens. Besides, the trade flows also interfered with the Covid-19. Reuters reports that in 2020, the demand was estimated at 3.4 million tonnes, but the actual demand was below expected since it is 2.7 million tonnes. This study analyses the financial health of PT Charoen Pokphand Indonesia Tbk ("CPIN"), one of the leading companies in the poultry industry in Indonesia, in order to assess the industry. In addition, we would like to identify the cause of the change in the company's financial health and make suggestions to improve its financial health. The data used are collected and gathered from the published audited report. The health of the company will be analyzed by using financial ratios that are stated in the Decree of Indonesia Ministry of State-Owned Enterprises No.KEP-100/MBU/2002. which are: return on 1) equity (ROE) and 2) return on investment (ROI) to analyze the profitability, 3) cash ratio and 4) current ratio to analyze the liquidity, 5) collection period, 6) inventory turnover, and 7) total asset turnover to analyze the activity, and 8) total equity to total asset to analyze the solvency. The results of the analysis from 2016-2020 are; AAA, AA, AA, AA, AA, AA. In conclusion, PT Charoen Pokphand Indonesia Tbk needs to improve profitability, recover sales revenue that peaked in 2018 and increase its activities by using its assets more efficiently.

Keywords: Decree of Indonesia ministry of state-owned enterprise, Financial performance, financial health, financial ratio, poultry industry, PT Charoen Pokphand Indonesia Tbk

INTRODUCTION

PT Charoen Pokphand Indonesia Tbk ("CPIN") is Indonesian largest producer of poultry feed, day old chicks and processed chickens. It is Jakarta's first high-quality poultry feed and mass feed factory that was established in 1972. Some major brands of its animal feeds are HI-PRO, HI-PRO-VITE, BINTANG, BONAVITE, ROYAL FEED, TURBO FEED and TIJI. The Company also manufactures day-old chicks (DOC) and processed food, primarily chicken meat. There are several brand names, such as Golden Fiesta, Fiesta, Champ and Okey, to market its processed foods. PT Charoen Pokphand owns manufacturing factories in several cities in Indonesia which are located in Sidoarjo, Medan, Tangerang and Mojokerto. It also has several breeding facilities located across multiple areas in Indonesia which are located in Riau, Bali and Sumatera Utara.

Today, the company is growing rapidly in the production of quality feed products and focuses on business activities that cover the entire spectrum of the poultry business, from breeding disease-resistant poultry to the production of high-quality processed meat. Until 2018, the company continued to grow. However, the trend has changed since 2019. Although the company's sales decreased by 20% compared to the previous year, its fixed assets increased significantly. As a result, the efficiency of capital appears to be undermined. And the indicators for 2020 show the same pattern for 2019.

There is three objectives in this study. The main purpose of this journal paper is to analyze the financial health performance of PT Charoen Pokphand Indonesia Tbk ("CPIN") for 5-years period. The second purpose of this journal paper is to analyze the causes of changes in the company's financial ratio trends after 2018. Then, the impact of the company's capital expenditure was analyzed and the company's appropriate response strategy was found. In this journal paper, financial ratio analysis techniques were used for the analysis.

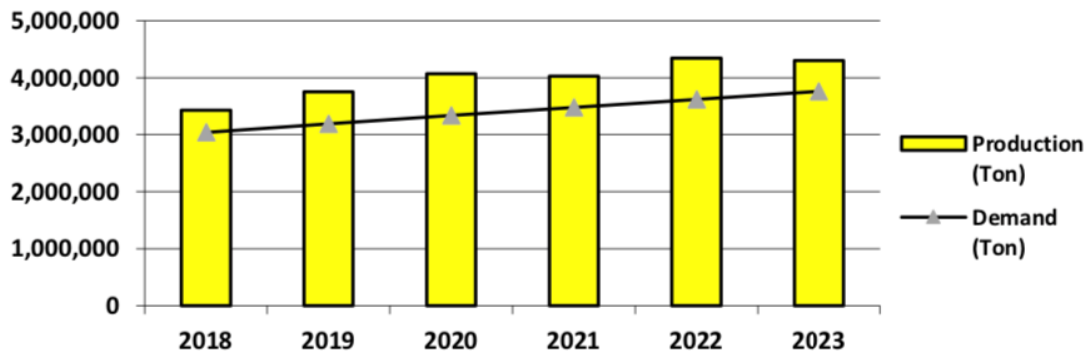
LITERATURE REVIEW

A. INDONESIA POULTRY INDUSTRY

In 2020, Indonesia has an oversupply of chickens since the poultry demand underneath the presumed. Referring to Reuters (2021), in 2020, the demand was estimated at 3.4 million tonnes, but the actual demand was lower than expected since it is 2.7 million tonnes. It is also caused by Covid-19.

Referring to Nasrullah, the director general of livestock and animal health at the country's agriculture ministry, quoted from The Poultry Side (2021), the demand for Indonesia in 2021 is expected to bounce back at 3.1 million tonnes. But, there is also oversupply expected, since the production estimation in 2021 is 4 million tonnes. Indonesia's farming ministry plans to limit the egg hatching and cull millions of chickens in order to control the oversupplies and slump in prices in the poultry market. Referring to Ali, Machfud, et. al (2021), the oversupply production in Indonesia has been a repeated problem. It creates complexity and ambiguity, because the projection trends shows that it increases every year, but the data accuracy has not been achieved due to complex situations to predict. Here is the graph that shows the projection of production and consumption of chicken meat in Indonesia.

Figure 1. Production and Consumption Projection of Broiler Chicken Meat in Indonesia



Source: Indonesia Agriculture Ministry, 2019

One of the challenges in the Indonesian poultry industry is volatility. Due to inelastic demand, seasonality, and production uncertainty, the markets are subject to unpredictable fluctuations and price volatility. To solve this problem, there is a policy that is published by the government in the circular letter from the Director-General of Livestock Farming and Animal Health (PKH Director- General) No. 09246/SE/PK.230/F/08/2020 to control the oversupply of day-old chicken supply and the Parent Stock in order to equilibrate the price of chicken.

B. PREVIOUS RESEARCH ON FINANCIAL PERFORMANCE

According to Needles et al (1996), financial ratios are analyzed to discover the relationships between financial statements components. It can be used to control and improve companies’ performance (Lucey, 1988). Financial ratios give a relative performance measure and underlying position of financial status of a company (Megaladevi, 2015). Profitability, liquidity, activity, solvency, and market values ratios are the key categories to analyze the financial (Tugas, 2012). Financial ratios could be used in many industries, proved by previous research that do the financial ratios in several industries, which are oil and gas, banking, cement, and construction industries (Tarawneh, 2006; Daryanto, 2017; Daryanto 2018; Brazer & Daryanto, 2019; Halkos & Salamouris, 2004; Lewellen, 2004). Nevertheless, only a few studies of financial performance to analyze the Indonesian poultry industry.

C. FINANCIAL RATIO AND PERFORMANCE ANALYSIS

Based on the Decree of Ministry SOEs No. KEP-100/MBU/2002, enterprises were divided into two categories, infrastructure and non-infrastructure enterprises. As PT. Charoen Pokphand Indonesia TBK is a company in the poultry industry, PT. Charoen Pokphand TBK is listed as a non-infrastructure enterprise. There are several indicators to measure financial health performance of companies, listed in table 1.

Table 1: Total Weighted Score

Classification	Indicator	Weight (Non Infrastructure)
Profitability	Return on Equity	20
	Return on Investment	15
Liquidity	Cash Ratio	5
	Current Ratio	5
Activity	Collection Period	5
	Inventory Turnover	5
	Total Asset Turnover	5
Solvency	Total Equity to Asset Ratio	10
Total Weight		70

Table 2: Health Indicator

Company Health Indicator		
Category	Rating	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

Source: The Ministry of SOEs Decree No. KEP-100/MBU/2002

From all the indicators, the score will be calculated into weight by dividing the score and total weight times 100 and the weight will be accumulated in order to determine the companies’ financial health. Each indicator has its maximum score as it is shown in table x. Companies’ health indicators are divided into three categories, which are healthy, with rating of AAA, AA, and A, less healthy, with rating of BBB, BB, B, and unhealthy, with rating of CCC, CC, C. The score range of each category will be shown in table 2.

a. Profitability Ratio

Profitability ratios are financial metrics that are used to measure and evaluate companies’ ability to generate income relative to revenue during a period of time and how well a company utilises its assets to produce profit. Profitability ratios can be evaluated

using Return of Equity (ROE) and Return on Investment (ROI). ROE used to measure the ability of a company to generate income from the funds invested by the shareholders through retained earnings. Hereby the formula to measure ROE:

$$\text{Return on Equity (ROE)} = \frac{\text{After Tax Income}}{\text{Shareholders' Equity}} \times 100\%$$

Return on Investment (ROI) used to assess and analyse the profitability or an investment's efficiency. ROI can be measured the formula below:

$$\text{Return on Investment (ROI)} = \frac{\text{Earning before Interest Tax+Depreciation}}{\text{Capital Employed}} \times 100\%$$

Then, both of the ratios will be assessed by using an assessment score which refers to the Decree of Ministry SOEs No. KEP-100/MBU/2002 that shown on tables 3 and 4.

Table 3: Assessment Score for ROE

Return on Equity (%)	Score
15 < ROE	20
13 < ROE ≤ 15	18
11 < ROE ≤ 13	16
9 < ROE ≤ 11	14
7,9 < ROE ≤ 9	12
6,6 < ROE ≤ 7,9	10
5,3 < ROE ≤ 6,6	8,5
4 < ROE ≤ 5,3	7
2,5 < ROE ≤ 4	5,5
1 < ROE ≤ 2,5	4
0 < ROE ≤ 1	2
ROE < 0	0

Table 4: Assessment Score for ROI

Return on Investment (%)	Score
18 < ROI	15
15 < ROI ≤ 18	13,5
13 < ROI ≤ 15	12
12 < ROI ≤ 13	10,5
10,5 < ROI ≤ 12	9
9 < ROI ≤ 10,5	7,5
7 < ROI ≤ 9	6
5 < ROI ≤ 7	5
3 < ROI ≤ 5	4
1 < ROI ≤ 3	3
0 < ROI ≤ 1	2
ROI < 0	1

Source: The Ministry of SOEs Decree No. KEP-100/MBU/2002

b. Liquidity Ratio

Liquidity ratio is a class of financial metric used to measure companies' ability to pay its short-term debts obligation without raising capital. Referring to the Decree of Ministry SOEs No. KEP-100/MBU/2002, there are two types to measure liquidity ratio, which are cash ratio and current ratio. Cash ratio used to measure companies' ability to pay its short-term debt. If the cash ratio equals to 1, it shows that the cash and debt amount is the same. It can be calculated by this formula:

$$\text{Cash Ratio} = \frac{\text{Cash+Cash Equivalents+Short Term Securities}}{\text{Current Liability}} \times 100\%$$

Current ratio used to measure companies' ability to pay its current debt with its current assets (Gibson, 2009). It can be calculated by this formula:

$$\text{Current Ratio} = \frac{\text{Current Asset}}{\text{Current Liability}} \times 100\%$$

After calculating both of the ratios, it can be assessed by using this assessment score shown in the table 5 and 6.

Table 5: Assessment Score of Cash Ratio

Cash Ratio (%)	Score
Cash Ratio ≥ 35	5
25 ≤ Cash Ratio < 35	4
15 ≤ Cash Ratio < 25	3
10 ≤ Cash Ratio < 15	2
5 ≤ Cash Ratio < 10	1
0 ≤ Cash Ratio < 5	0

Table 6: Assessment Score of Current Ratio

Current Ratio (%)	Score
125 ≤ Current Ratio	5
110 ≤ Current Ratio < 125	4
100 ≤ Current Ratio < 110	3
95 ≤ Current Ratio < 100	2
90 ≤ Current Ratio < 95	1
Current Ratio < 90	0

Source: The Ministry of SOEs Decree No. KEP-100/MBU/2002

c. Activity Ratio

Activity ratio is a class of financial metric used to evaluate companies' efficiency in leveraging the assets to generate revenue and cash. Activity ratios are evaluated using collection period, inventory turnover, and total asset turnover. A collection period is the number of days required to collect receivables from customers in terms of day (Anthony et al, 2011). Inventory turnover used to evaluate how fast merchandise inventory flows through a business. Total asset turnover used to evaluate the effectiveness of a company in using their assets to generate sales. All of this ratios can be calculated by this formula:

$$\text{Collection Period (CP)} = \frac{\text{Trade Receivable}}{\text{Revenue}} \times 365$$

$$\text{Inventory Turnover (ITO)} = \frac{\text{Inventory}}{\text{Revenue}} \times 365$$

$$\text{Total Asset Turnover (TATO)} = \frac{\text{Revenue}}{\text{Capital Employed}} \times 100\%$$

After being calculated, the ratios are assessed using the assessment score in table 7,8, and 9.

Table 7: Assessment Score of CP

Collection Period (days)	Adjustment (days)	Score
CP ≤ 60	CP > 35	5
60 < CP ≤ 90	30 < CP ≤ 35	4,5
90 < CP ≤ 120	25 < CP ≤ 30	4
120 < CP ≤ 150	20 < CP ≤ 25	3,5
150 < CP ≤ 180	15 < CP ≤ 20	3
180 < CP ≤ 210	10 < CP ≤ 15	2,4
210 < CP ≤ 240	6 < CP ≤ 10	1,8
240 < CP ≤ 270	3 < CP ≤ 6	1,2
270 < CP ≤ 300	1 < CP ≤ 3	0,6
300 < CP	0 < CP ≤ 1	0

Table 8: Assessment Score of ITO

Inventory Turnover (days)	Adjustment (days)	Score
ITO ≤ 60	35 < ITO	5
60 < ITO ≤ 90	30 < ITO ≤ 35	4,5
90 < ITO ≤ 120	25 < ITO ≤ 30	4
120 < ITO ≤ 150	20 < ITO ≤ 25	3,5
150 < ITO ≤ 180	15 < ITO ≤ 20	3
180 < ITO ≤ 210	10 < ITO ≤ 15	2,4
210 < ITO ≤ 240	6 < ITO ≤ 10	1,8
240 < ITO ≤ 270	3 < ITO ≤ 6	1,2
270 < ITO ≤ 300	1 < ITO ≤ 3	0,6
300 < ITO	0 < ITO ≤ 1	0

Source: The Ministry of SOEs Decree No. KEP-100/MBU/2002

Table 9: Assessment Score of TATO

Total Asset Turnover (days)	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 ≤ 0	2,5
20 < TATO ≤ 40	TATO < 0	2
TATO ≤ 20	TATO < 0	1,5

Source: The Ministry of SOEs Decree No. KEP-100/MBU/2002

d. Solvency Ratio

A solvency ratio is a financial metric used to measure companies' ability to pay the long-term debt obligations. It indicates if the company's cash flow is adequate to meet its long-term debt liabilities. It can be calculated by this formula:

$$\text{Equity to Asset Ratio (ETA)} = \frac{\text{Total Equity}}{\text{Total Asset}} \times 100\%$$

Then, the ratios were analyzed by using this assessment score.

Table 10: Assessment Score of ETA

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

Source: The Ministry of SOEs Decree No. KEP-100/MBU/2002

RESEARCH METHOD

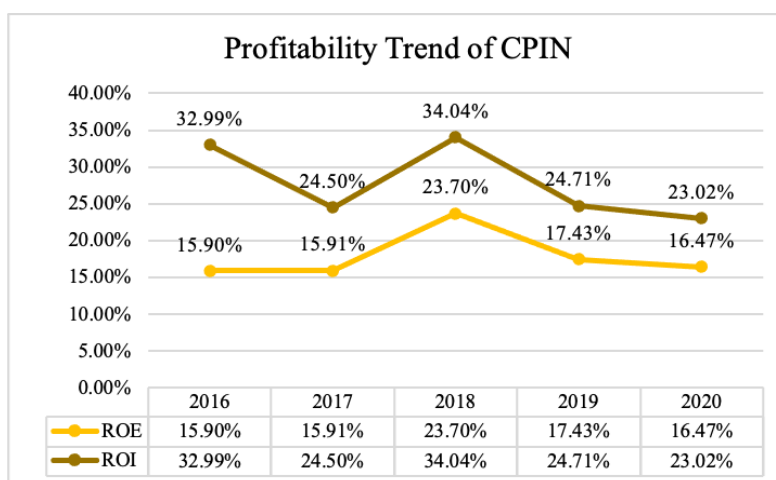
A company must maintain its financial health in order to sustain. The objective of this research is to assess financial performance by using ratio analysis. Ratio analysis can be used to analyze companies' profitability, solvency, and liquidity. This research will analyze PT. Charoen Pokphand financial ratios for the period of 2016 to 2020. All of the variables used to analyze the financial performance is referring to the Decree of Ministry SOEs No. KEP-100/MBU/2002. The data were all collected from PT. Charoen Pokphand Annual Report between 2016 and 2020. Referring to The Ministry of State Owned Enterprise Decree No. KEP-100/MBU/2002, PT. Charoen Pokphand is listed as a non-infrastructure company, so the score indicators will be referred to the non-infrastructure category. The ratio analysis is divided into four categories, which are profitability analysis, liquidity analysis, activity analysis, and solvency analysis. Then, all the ratio analysis scores will be accumulated into a total weight that determines the company's financial health. Financial health is divided into three levels, which are healthy (AAA, AA, A), less healthy (BBB, BB, B), and unhealthy (CCC, CC, C) which the scores are stated in table 2.

RESULTS AND DISCUSSIONS

A. PROFITABILITY RATIO ANALYSIS

Figure 2 illustrates the profitability of PT. Charoen Pokphand Indonesia TBK. The company's gross margin and profit margin have continued to rise over the past four years. As shown in the figure 1, PT. Charoen Pokphand Indonesia TBK has a good profitability ratio. The minimum standard from the Decree to get the best score is 15% for ROE and 18% for ROI. The ROE and ROI of PT Charoen Pokphand is above the standard for the five years. Therefore, the profitability trend are declining after 2018. This is because sales have declined. If sales continue to fall, it will not be able to secure sustained profitability. The highest ROE of PT Charoen Pokphand is 34,04% in 2018 and the lowest is 23,03% in 2020. For the ROI, the highest ratio is also in 2018 at 23,07% and the lowest is 15,90% in 2016. The company needs to increase sales in the future.

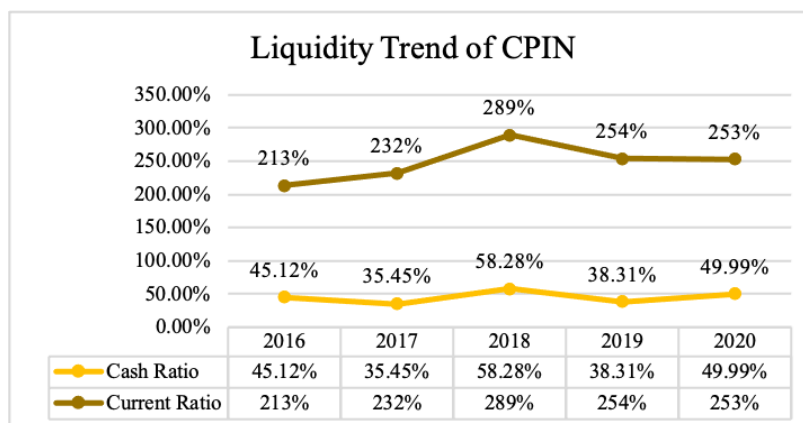
Figure 2. Profitability Trend of PT. Charoen Pokphand in 2016-2020



B. LIQUIDITY RATIO ANALYSIS

Figure 3 illustrates the liquidity of PT. Charoen Pokphand Indonesia TBK. Liquidity is the companies' ability to pay its short-term debts in a well-timed manner. As shown in the figure, PT. Charoen Pokphand Indonesia TBK has a good liquidity ratio. The company has no problem meeting its short-term debt as its Current Ratio is consistently above 200%. As the cash ratio is also maintained at 50%, the company's cash flow is not considered to be a problem. Nevertheless, liquidity has been somewhat lower since peaking in 2018, so it is necessary to check whether liquidity has turned into a continuous downward trend.

Figure 3. Liquidity Ratio Trend of PT. Charoen Pokphand in 2016-2020



C. ACTIVITY RATIO ANALYSIS

Figure 4 and 5 illustrates the activity ratio of PT. Charoen Pokphand Indonesia TBK. Activity ratio is the ability of a company in leveraging the asset to generate revenue. Figure 4 shows the Collection Period and Inventory Turnover which is in the number of days. It indicates a relatively stable trend from 2016 until 2020 with the maximum deviation is around 9.74 days for the Collection Period and 10.22 days for Inventory Turnover. After 2018, PT. Charoen Pokphand's Collection Period is increasing and experienced the highest Collection Period in 2019 which is 49.91 days. For the Inventory Turnover, it keeps having a lower ratio than 2016 and experienced the lowest ratio in 2018 which is 11.88 days.

Figure 4. Collection Period and Inventory Turnover Trend of PT. Charoen Pokphand in 2016-2020

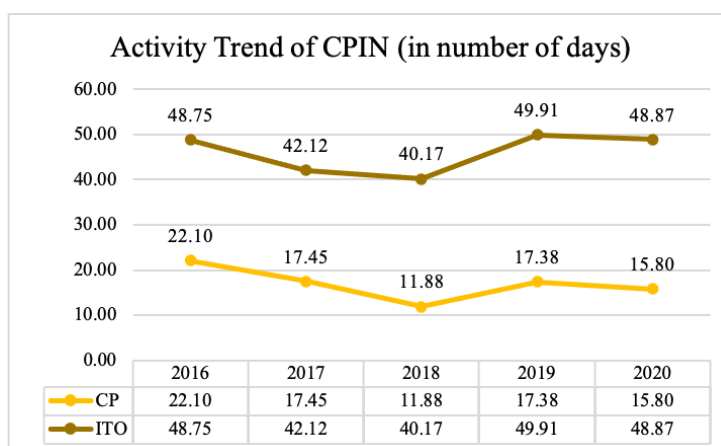
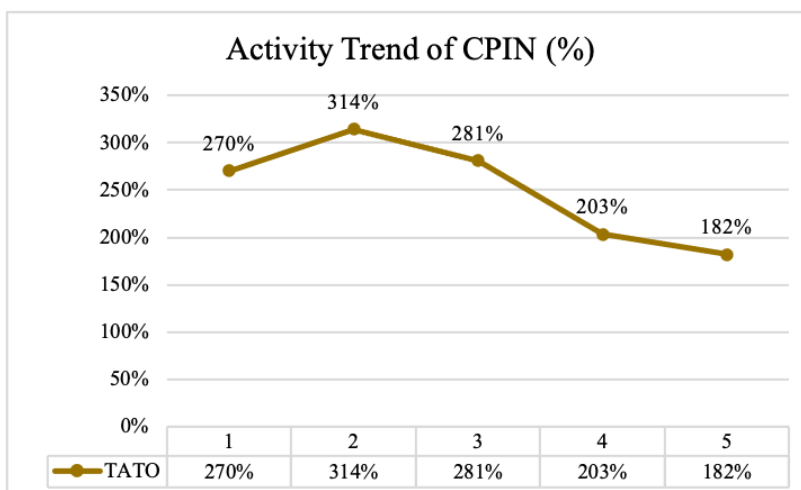


Figure 5 shows the Total Asset Turnover for PT Charoen Pokphand. Since 2017, the ratio of Total Asset Turnover keeps getting lower. It experienced the lowest Total Asset Turnover in 2020 which is 182%. The main reason is that the company has invested in new production facilities(fixed assets) and its total assets have continued to increase, but its sales have declined after peaking in 2018.

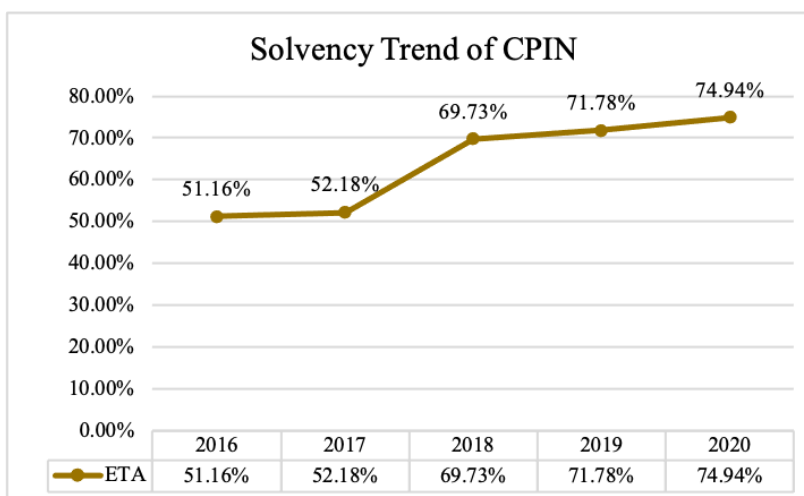
Figure 5. Total Asset Turnover Trend of PT. Charoen Pokphand in 2016-2020



D. SOLVENCY RATIO ANALYSIS

Figure 6 illustrates the solvency of PT. Charoen Pokphand Indonesia TBK. Solvency is companies' ability to pay all its obligations in a well-timed manner, or companies' ability to pay off all its long-term debts in a well-timed manner. From figure 5, it shows that Equity to Asset ratios are continuously increasing from 2016 to 2020 (51.16%, 52.18%, 69.73%, 71.78%, 74.94% respectively). It has the highest ratio in 2020 which is 74.94%.

Figure 6. Solvency Ratio Trend of PT. Charoen Pokphand in 2016-2020



E. VALIDATION TESTING

Table 11 illustrates the financial assessment of PT. Charoen Pokphand. From 2016 until 2020, it can be concluded that PT. Charoen Pokphand is categorized as a health company, even though the health level experienced a decrease from AAA in 2016 to AA in 2017 until 2020. It has the highest total weight of 95.71 in 2016 and stable weights of around 93.57 in 2019 and 2020.

Table 11: Test Result for the Period

Indicators		2016		2017		2018		2019		2020	
		Ratio	Score	Ratio	Score	Ratio	Score	Ratio	Score	Ratio	Score
Profitability Ratio	Return on Equity (%)	15.9	20	15.9	20	23.7	20	17.43	20	16.47	20
	Return on Investment (%)	32.99	15	24.5	15	34.04	15	24.71	15	23.02	15
Liquidity Ratio	Cash Ratio (%)	45.12	5	35.45	5	58.28	5	38.31	5	49.99	5
	Current Ratio (%)	213	5	232	5	289	5	254	5	253	5
Activity Ratio	Collection Period (Days)	22.1	3.5	17.45	3	11.88	2.4	17.38	3	15.8	3
	Inventory Turn Over (Days)	48.75	5	42.12	5	40.17	5	49.91	5	48.87	5
	Total Asset Turnover (%)	270	5	314	5	281	5	203	5	182	5
Solvency Ratio	Equity to Asset Ratio (%)	51.16	8.5	52.18	8.5	69.73	8	71.78	7.5	74.94	7.5
Total Score			67		66.5		65.4		65.5		65.5
Total Weight			95.71		95.00		93.43		93.57		93.57
Health Level			AAA		AA		AA		AA		AA
Status		Healthy		Healthy		Healthy		Healthy		Healthy	

CONCLUSION

A. LIMITATION

To analyze the financial health of poultry industry companies, this study uses the Decree of State Owned Enterprise No. KEP-100/MBU/2002. Decree of State Owned Enterprises (SOEs) No. KEP-100/MBU/2002 are commonly used to analyze the financial health of SOEs. However, the companies analyzed in this journal are private companies. Nevertheless, in this journal, the Decree of State Owned Enterprises (SOEs) No. KEP-100/MBU/2002 was used for the purpose of objectively grasping the financial performance and soundness of a company.

B. CONCLUSION AND RECOMMENDATION

The goal of the first problem which this study conducts is to answer regarding the financial health of PT Charoen Pokphand Indonesia Tbk by using the Decree of State Owned Enterprise (SOEs) No. KEP-100/MBU/2002. It can be concluded that PT Charoen Pokphand Indonesia Tbk remained in good financial health for the period from 2016 to 2020. 2016 is the healthiest year for AAA and continues to be classified as AA since 2017. Looking in detail, the profitability ratio and liquidity ratio were the best in 2018, and the activity ratio and the solvency ratio were the best in 2016.

The second goal is to identify the reasons for the somewhat lower financial performance of the company in 2019 and 2020. The company continues its growth with increasing sales and profits until 2018, after which it declines. In particular, ratios such as ROI and Total Asset Turnover have declined significantly. This is because, although new investments were made in production facilities, sales declined due to market oversupply and the effects of the pandemic. Similarly, we can see that the company has increased its total assets as a result of new investments, but its sales have decreased and thus its assets are not being used efficiently.

The last goal is to make an effective offer to the company in situations like this. The company is one of the market leaders in the poultry industry in Indonesia. It has excellent financial health and has a strong position in the market. Nevertheless, an oversupply in the poultry market and the threat of a pandemic could put the company in a difficult position. In this situation, active investment activities can be somewhat risky. In a market where supply exceeds demand, increasing production facilities increases fixed costs and reduces capital efficiency. Therefore, the company should not make any further large-scale investments. At the same time, the company needs to be prepared to have more flexibility in adjusting production to meet demand.

It is necessary to manage fixed costs and optimize the production process. The company should look at individual processes within a plant, measure their performance, and then try to make those processes more efficient. Energy consumption must also be reduced. As costs increase and the scrutiny of a company's carbon footprint increases, energy needs to be used as efficiently as possible. In addition, the company must thoroughly manage hygiene and promote accident prevention and productivity improvement through employee training.

This study provided additional insights into the Indonesian poultry industry. PT Charoen Pokphand Indonesia Tbk is a market leader in the poultry industry in Indonesia. And it is an excellent company for financial health. Nevertheless, most financial ratios

have declined compared to a few years ago. Supply exceeds demand, and in risky situations such as a pandemic, rather than increasing production facilities, the company's production system should be more efficient and its ability to respond appropriately to changes in demand should be improved. And it's good to reduce costs, manage risk and prepare for future growth. This study should provide better insight to the Indonesian poultry industry and this company to managers and further research.

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