

## FINANCIAL PERFORMANCE ANALYSIS THROUGH VALUE BASED MEASUREMENT IN INTEGRATED POULTRY COMPANIES IN INDONESIA FROM 2013 – 2017

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### ABSTRACT

*Indonesia's commercial poultry sector has grown significantly since the early 1980s. However, in 2017 the poultry feed sector in Indonesia was not stable enough because of the rising price of corn. During 2017, the Indonesian government also issued regulations to control day old chickens (DOC) Final Stock and Parent Stock availability. The government continues to organize the broilers sector, which in the last few years suffered a supply and demand imbalance, causing sharp price fluctuations. These government policies will affect the performance of companies in integrated poultry business. There are four big companies in integrated poultry business in Indonesia, which are PT Charoen Pokphand Indonesia Tbk (CPIN), PT Japfa Comfeed Indonesia Tbk (JPFA), PT Malindo Feedmill Tbk (MAIN), and PT Sierad Produce Tbk (SIPD). In order to the competition among them, calculate their financial performance is needed to determine the best-integrated poultry company. Therefore, this research aims to assessed the financial performance through value based measurements, which are economic value added (EVA), market value added (MVA), and cash value added (CVA) in four companies in integrated poultry business Indonesia from 2013 until 2017. The result shows that EVA in four companies is very fluctuated year by year. However, in terms of MVA and CVA, CPIN has the highest value compared to the others three companies.*

Key words: Financial Performance, Economic Value Added, Market Value Added, Cash Value Added, Value Based Measurement, Integrated Poultry Companies.

### INTRODUCTION

Indonesia has many nutrition problems, ranging from malnutrition to obesity. To overcome the problems of malnutrition, we must be more aware of the essential nutrients needed by our body. The body needs seven kinds of nutrients every day, such as carbohydrates, proteins, fats, vitamins, minerals, fiber, and water. The most important nutrients for every cell in the body are proteins. Hair and nails mostly made of proteins. Proteins are the building block of bones, muscles, cartilage, skin, and blood. There are two origins of protein; animal protein and plant protein. Animal protein is a protein derived from animals or animal-based products, such as beef, chicken meat, eggs, fish, and milk. Plant protein comes from the consumption of vegetables or plant-based products like tofu, tempeh, soybeans, and peas.

However, the most well-known protein sources are chickens and eggs. Based on the report from DBS Asian Insights (2017), between 2008 and 2015, Indonesia's per capita chicken meat consumption grew at a compound annual growth rate or CAGR of 11.7% to 10 kg, faster than Indonesia's GDP expansion. The industry that manages the regulation and supervises the availability of chickens and eggs is the agribusiness industry, precisely the poultry agribusinesses. Poultry agribusiness comprises of poultry feed and poultry farming, such as poultry breeder, day-old chickens, broilers, and chickens processing. Indonesia's market for protein products is the largest in South-East Asia, with a promising outlook for growth.

Indonesia's economic growth in 2017 has reached 5.07%, an increase from 5.03% in 2016, 4.88% in 2015, and 5.01% in 2014. The growth in 2017 is the highest in the last four years, even though it still below the target set by the government. However, for Indonesia poultry market, the economic recovery has not been felt significantly until the end of 2017, especially for poultry feed. The poultry feed sector was not stable enough because of the rising price of corn as the primary raw material used in poultry feed production. The government makes a policy to encourage the local corn production and hence imposing a ban on the direct import of corn since 2015. Since 2016, the Indonesian government has limited the corn imports from 12.9 million tons during 2010 – 2014 to 5.7 tons during 2015 – 2018. The member of Ombudsman Republik Indonesia (ORI), Alamsyah said that corn imports declined from 3.3 million tons in 2015 to 1.3 million tons in 2016, 0.5 million tons in 2017, and almost no imports in 2018.

The economic growth had a positive effect on the livestock industry, particularly the broiler chickens. Based on the data from the BPS, the growth of broilers production in Indonesia for 2014 until 2018 tends to increase. Compared to the previous year, broilers production in 2018 has a slight increased by 2.1 million tons. During 2017, the Indonesian government issued regulations to control day old chickens (DOC) Final Stock and Parent Stock availability. The DOC stock control method is a fairly effective step to continue to balance the broilers demand and availability, therefore stabilizing the broilers selling price. Price stability is highly necessary for the farmers, especially since broilers' farming is one of the fastest growing businesses.

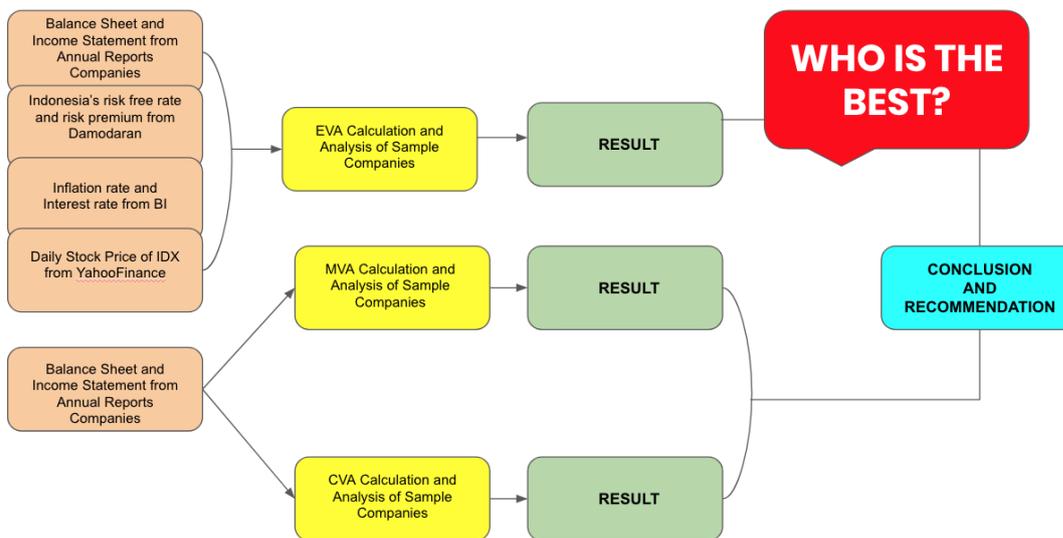
According to DBS Asian Insights (2017), Indonesia's chicken consumption per capita will reach 19.4 kg in 2021. Based on the report, they suggested that to fulfill the demand for chicken, Indonesia need 1,279 new breeding farms, 3,365 new commercial farms, and 11 million metric tons (MT) per annum of new feed mill capacities. The quick-service restaurants such as KFC and McDonalds, hotels, restaurants, and catering services also influence the demand for chicken. It is because in Indonesia, integrated

poultry players also participate in their supply chain. For the past few years, integrated poultry players in Indonesia have been able to retain their market shares without significant threats.

There are four big companies in integrated poultry business in Indonesia, which are PT Charoen Pokphand Indonesia Tbk (CPIN), PT Japfa Comfeed Indonesia Tbk (JPFA), PT Malindo Feedmill Tbk (MAIN), and PT Sierad Produce Tbk (SIPD). Although all companies are in the same market, each company still has a different competitive advantage and gives a different value-added to Indonesia's economic and also shareholders. Commonly the tool to measure the company's financial performance is financial ratios. However, these ratios are not always shown 100% real financial health of the company. One of the flaws is not revealing the cost of capital (Kasmir, 2010). Therefore, this study used value-based measurements to assess the financial performance of four big companies and to know who is the best among them.

## BUSINESS ISSUE EXPLORATION

### Conceptual Framework



### Data Analysis

Company financial performance is a picture of a company's financial ability to achieve financial targets and how the condition of the company's management to the public (Anthony, Robert Newton and Govindarajan, Vijay and Dearden, 1998). Usually to measure company financial performance, calculation of financial ratios is used. Financial ratios 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 (Daryanto & Samidi, 2018). However, the measures of company financial performance derived from financial ratios have understandably come under a lot of criticism, such as undervaluation of assets, provisions, and capitalization of costs (Ashford & Brown, 1994). The concept of economic framework is an innovative way to measure the value of a company, it sets quality standard in measuring performance (Naghshbandi & Chouhan, 2016). There are several different value-based financial performance measurements in economic framework that have been developed. For this case, the author used three value-based measurements to assess the company financial performance, such as Economic Value Added (EVA), Market Value Added (MVA), and Cash Value Added (CVA). These measures include a firm's cost of capital in their formula (Fabozzi, Frank J and Grant, James L, 2000). The new performance value measures along with traditional accounting measures and establishing a suitable performance measure for companies in emerging markets are practically important for evaluating the company's performance and enhancing competitiveness (Venugopal, Ravindar Reddy M., & Bhanu Prakash Sharma G., 2019).

First method is Economic Value Added or EVA. EVA is the most important concept, which was popularized by Stern Stewart & Co., a New York based consulting firm. According to Stewart (1991) in the book *The Quest for Value*, he describes EVA as an estimate of the economic profit generated by a company. He indicates that EVA is another form of Residual Income (RI). The concept of EVA explained about the shareholder wealth only can be created if a company earns a return on its capital and exceeds its cost of capital. Based on Petravičius & Tamošiūnienė (2008), EVA can be used for both backward and forward looking. The formula of EVA is:

$$EVA = NOPAT - Capital Charge (WACC \times IC)$$

where:

<i>NOPAT</i>	=	Net Operating After Tax
<i>WACC</i>	=	Weighted Average Cost of Capital
<i>IC</i>	=	Invested Capital

Here are the three steps of calculating EVA in each company. The first thing to do is calculate the Net Operating Profit After Tax (NOPAT). According to O'Byrne (1996), NOPAT is operating profit minus the taxes that would be payable without any deduction for interest expense. The formula of NOPAT is:

$$NOPAT = EBIT(1 - Tax Rate)$$

After NOPAT has been calculated, the next step to do is calculate the Weighted Average Cost of Capital (WACC). There are two important elements in calculating the WACC of a company, such as cost of debts and cost of equity. The formula of WACC is:

$$WACC = r_D(1 - T_c) \times (D/V) + r_E \times (E/V)$$

where:

$r_D$	=	Cost of Debt
$T_c$	=	Tax Rate
$D/V$	=	Portion of Debt
$r_E$	=	Cost of Equity
$E/V$	=	Portion of Equity

Then, the third thing to do is calculate the Invested Capital (IC). The invested capital obtained from all the capital provided to the company, outside short-term non-interest bearing borrowings. The accounts that included in short-term non-interest bearing borrowings are accounts payable, customer advances, and accrued expenses. So the formula to measure the invested capital is:

$$IC = Total Assets - Short Term Non Interest Bearing Borrowings$$

Second method is Market Value Added or MVA. Stewart (1991) defines Market Value Added or MVA as the excess of market value of equity over the book value of equity, where market value of equity is obtained from the number of outstanding shares and the share price. EVA and MVA is different, EVA is an accounting based measure for the company performance of one year, whereas MVA is a market generated number. The formula of MVA is:

$$MVA = Market Value of Equity - Equity Shareholder Capital$$

Third method is Cash Value Added or CVA. The Cash Value Added (CVA) method has a similar concept with EVA. The difference between them is that CVA uses operating cash flow as the basis for calculating company profits. There are two approaches to measure the CVA, which are from the Frederik Weissenrieder Consulting and the Boston Consulting Group (BCG). In this study, author used direct calculation from Boston Consulting Group to measure the CVA value. The CVA can be calculated as:

$$CVA = AOCF - WACC - G_I$$

$$AOCF = NOPAT + Dep - E_N$$

$$E_N = \frac{WACC \times Gross\ Fixed\ Asset}{(1 + WACC)^n} - 1$$

$$Gross\ Fixed\ Asset = Acc.\ Dep + Acc.\ Amt + Dep + Amt$$

$$n = \frac{Gross\ Fixed\ Asset}{Dep}$$

where:

<i>AOCF</i>	=	Adjusted Operating Cash Flow
$G_I$	=	Gross Investment
<i>NOPAT</i>	=	Net Operating Profit After Tax
<i>Dep</i>	=	Depreciation
<i>Amt</i>	=	Amortization
$E_N$	=	Economic Depreciation
$n$	=	The Average Expected Life of Asset
<i>Acc. Dep</i>	=	Accumulated Depreciation
<i>Acc. Amt</i>	=	Accumulated Amortization

### Previous Findings on Financial Performance using Value Based Measurement

Petravičius & Tamošiūnienė (2008) analyze about corporate performance and the measures of value added. This paper considers the ways in which value can be created or destroyed in a company. The value-added methods that used in this paper are Economic Value Added (EVA), Cash Flow Return on Investment (CFROI), Market Value Added (MVA), and Cash Value Added (CVA). This paper found that value-based methods promote the maximization of the economic worth of an organization by allocating its assets to their best use.

Erasmus (2008) analyze about evaluating value based financial performance measures. The paper primary objectives are first to determine the relationship between the traditional measures earnings before extraordinary items (EBEI) and cash flow from operations (CFO), and shareholder value creation. Second is to investigate the value-based measures residual income (RI), EVA, CVA, and CFROI, and also to determine their relationship with the creation of shareholder value. Third is to evaluate the incremental information content of the value-based measures above the traditional measures. The results were based on the relative information content tests, EBEI explains a larger portion of the variation in a company's market-adjusted share returns, compared to EVA, CVA, and CFROI. However, if the relative information content of the value-based financial performance measures considered, RI provides the best overall results.

Venugopal, Ravindar Reddy M., & Bhanu Prakash Sharma G (2019) analyze about the significance of shareholder value creation in the companies in emerging markets and reviews the research articles and studies available in categories such as importance, empirical evidence, and drivers of shareholder value creation. The Indian companies are used as a sample of this study. This study concluded that the authorities should emphasize to review the existing accounting system and encourage the companies to implement the new performance measures in their statements along with the traditional measures.

### BUSINESS SOLUTION

#### Economic Value Added (EVA)

Table 1 until 4 below described the results of each variable needed to calculate EVA in each company. The important variables such as NOPAT, Invested Capital, and WACC can be used as a reason why an EVA value in a company can be positive or negative.

Table 1. EVA Calculation of CPIN

in Million Rupiah	2013	2014	2015	2016	2017
NOPAT	2,683,723	1,978,651	2,616,055	3,312,837	2,787,206
Invested Capital	13,861,928	18,636,750	21,627,607	22,300,939	22,549,047
WACC	14.1%	12.2%	13.8%	11.5%	8.97%
<b>EVA</b>	<b>729,105</b>	<b>- 302,246</b>	<b>- 370,599</b>	<b>743,069</b>	<b>762,559</b>

Source: Author, 2019

Table 2. EVA Calculation of JPFA

in Million Rupiah	2013	2014	2015	2016	2017
NOPAT	1,351,977	956,824	1,295,957	2,378,809	1,706,324
Invested Capital	13,580,785	13,351,596	14,011,202	16,520,748	17,342,525
WACC	12%	12.2%	13.7%	10.8%	7.28%
<b>EVA</b>	<b>- 278,621</b>	<b>- 671,761</b>	<b>- 617,721</b>	<b>589,462</b>	<b>444,415</b>

Source: Author, 2019

Table 3. EVA Calculation of MAIN

in Million Rupiah	2013	2014	2015	2016	2017
NOPAT	307,872	41,385	83,799	370,121	82,614
Invested Capital	1,927,940	3,049,601	3,628,023	3,542,236	3,701,506
WACC	12.2%	11.8%	9.9%	9.1%	7.40%
<b>EVA</b>	<b>72,450</b>	<b>- 400,748</b>	<b>- 277,153</b>	<b>46,902</b>	<b>- 191,373</b>

Source: Author, 2019

Table 4. EVA Calculation of SIPD

in Million Rupiah	2013	2014	2015	2016	2017
NOPAT	139,144	- 25,708	- 370,834	49,825	- 236,475
Invested Capital	2,958,023	2,615,953	2,011,886	2,392,221	1,956,216
WACC	10.4%	9.4%	9.2%	8.8%	5.8%
<b>EVA</b>	<b>- 168,064</b>	<b>- 271,428</b>	<b>- 555,538</b>	<b>- 161,122</b>	<b>- 378,341</b>

Source: Author, 2019

According to the results of EVA calculation, none of the four big companies in the integrated poultry business Indonesia that always generate EVA year by year. The EVA value in the four big companies is fluctuated from 2013 to 2017. CPIN, JPFA, and MAIN are three companies who still generate EVA during the research period. Overall, CPIN had the highest EVA value among the other three companies. The positive value of EVA indicates that the company's net operating profit after tax is higher compared to its capital charge.

However, CPIN was unable to generate EVA in 2014 and 2015, although the company's net sales and net income were increased. This condition was due to a loss from day-old chicks segment that resulted from a prolonged period of weak day-old chick's prices that existed during the second half of the year. The other reason was still due to the increase in raw material costs. A combination of high price of raw materials and a weakened Rupiah led to an increase in company's production costs through 2014 and 2015. CPIN also can maintain its cost of goods sold by lowering it by 0.19% for 2015. But still CPIN cannot generate added value for its shareholders.

CPIN has succeeded in generating positive EVA value again in 2016 and 2017. It is because the company has experience rebalancing of the industry's supply and demand situation in 2016 and 2017, which has been characterized by supply and demand imbalances in previous years. The industry supplies and demand imbalance is now approaching equilibrium as demand growth is better matched to supply. In 2016, the company reported sales were IDR 38,256 million, an increase of 27.86% compared to the previous year. The company's net income also increases significantly by 21.43% to become IDR 2,225 million in 2016. CPIN also acquired a commercial poultry creation in 2016, which engages in the growing of poultry by farmers as business partners. CPIN also made an effort to strengthen the balance sheet by reducing their levels of debt, optimizing the capital expenditure, and improving their dividends to shareholders. These are done by CPIN because they want to strengthen its operational base for facing challenges in the future.

Since 2013 until 2015, JPFA cannot generate EVA for its shareholders. It is because since those years, the proportion of capital charge is higher compared to its NOPAT. If the capital charge is higher than NOPAT, it means that JPFA was bears high debt. The EBIT of JPFA also decreases significantly in 2014, while the investment and cost of capital were increase every year. In 2014, the company faced challenge in terms of the low purchasing power of poultry products in Indonesia. Under such conditions, day-old chicks and broiler prices were depressed, and resulting in the company's shrinking profit margin, especially from the Poultry Breeding Unit. However, JPFA can generate EVA to its shareholders in 2016 and 2017. The EBIT in 2016 was increased significantly compared to 2015. Even though in 2017 the EBIT was decreased again, JPFA still can produce added value to its shareholders.

Different conditions occur at SIPD. This company cannot produce EVA at all during the research period. The negative amount of EBIT and high amount of capital charge is become the reasons why this company cannot generate EVA for its shareholders. In 2014, 2015, and 2017, the EBIT in SIPD were negative, however when the EBIT is positive in 2013 and 2016, still the company cannot generate EVA to its shareholders. Actually the company does some improvement in 2017 such as internal consolidation and improvement initiatives to encourage more effective and efficient operational performance in ongoing basis. However, this effort cannot generate EVA value in SIPD.

### Market Value Added (MVA)

Table 5 until 8 below described the results of each variable needed to measure MVA in each company. To measure MVA value in a company there are two variables, such as total market value of shares and total book value of shareholder's equity.

Table 5. MVA Calculation of CPIN

in Million Rupiah	2013	2014	2015	2016	2017
Market Value of Shares	55,343,250	61,984,440	42,634,800	50,669,820	49,194,000
Book Value of Shareholder's Equity	9,933,216	10,925,703	12,547,128	14,119,957	15,666,357
<b>MVA</b>	<b>45,410,034</b>	<b>51,058,737</b>	<b>30,087,672</b>	<b>36,549,863</b>	<b>33,527,643</b>

Source: Author, 2019

Table 6. MVA Calculation of JPFA

in Million Rupiah	2013	2014	2015	2016	2017
Market Value of Shares	12,980,800	10,108,000	6,765,400	16,572,450	14,801,800
Book Value of Shareholder's Equity	3,244,672	3,470,659	3,859,438	7,894,120	8,221,159
<b>MVA</b>	<b>9,736,128</b>	<b>6,637,341</b>	<b>2,896,962</b>	<b>8,678,330</b>	<b>6,580,641</b>

Source: Author, 2019

Table 7. MVA Calculation of MAIN

in Million Rupiah	2013	2014	2015	2016	2017
Market Value of Shares	5,381,625	3,841,830	2,845,650	4,063,785	2,026,295
Book Value of Shareholder's Equity	869,458	1,082,895	1,550,450	1,746,101	1,702,861
<b>MVA</b>	<b>4,512,167</b>	<b>2,731,935</b>	<b>1,295,200</b>	<b>2,317,684</b>	<b>323,434</b>

Source: Author, 2019

Table 8. MVA Calculation of SIPD

in Million Rupiah	2013	2014	2015	2016	2017
Market Value of Shares	469,550	497,723	844,050	910,520	1,245,270
Book Value of Shareholder's Equity	1,268,068	1,269,849	1,387,802	1,774,747	2,130,977
<b>MVA</b>	<b>- 798,518</b>	<b>- 772,126</b>	<b>- 543,752</b>	<b>- 864,227</b>	<b>- 885,707</b>

Source: Author, 2019

Based on the results of MVA calculation in the table above, it can be seen that from four companies in integrated poultry business in Indonesia, only PT Sierad Produce that cannot generate any market value added during research period. A positive value of MVA can shows us the capital market estimation about how big the company's investment projects, both those that have occurred and those that will occur in the future. Investors need to understand the performance of the company that is able to create added value for their investments. A positive value of MVA also means that there is an added value for the company and it usually will be responded by the increase in the company's stock price. So it means that the company can generate added value for the investors. However, if MVA is negative, it means that the company experiences a decline in performance, which will usually be responded to a decrease in stock prices of the company.

During the research period, CPIN, JPFA, and MAIN are always generate market value added to investors. However, if we compare the amount of MVA in those companies, CPIN have the highest value among the other three companies. The highest MVA value in CPIN occurred in 2014 and this condition is in line with CPIN's stock price in 2014. From 2013 until 2017, the highest stock price of CPIN is happened in 2014 and amounted to IDR 3,780. This can be used as evidence that when CPIN cannot generate EVA in 2014, it doesn't mean CPIN also will not generate MVA to investors. Proven on the calculations that show the opposite condition.

However, the positive relationship between stock prices and MVA doesn't happen at JPFA. The highest MVA value at JPFA is in 2013. While, the highest stock price of JPFA is in 2016, amounted to IDR 1,455. The reason why the highest MVA is not in line with JPFA's stock price because of the total book value of shareholder's equity. Compared to the total book value of shareholders' equity in 2013, the amount in 2016 was higher.

Malindo Feedmill or MAIN has the highest MVA in 2013. It is along with their stock price in 2013. The MAIN' stock price in 2013 was the highest during the research period, amounted to IDR 3,175. The amount of total book value of shareholders' equity in 2013 also the lowest compared to the next years. This small amount is caused by the negative value of additional paid-in

capital. Different from SIPD, MAIN can still generate market value added to its investors, although there was a significant decreased in 2017.

The main factor that makes SIPD unable to generate MVA values during the research period is the total market value of shares that lower than total book value of shareholders' equity. What make the total market value of shares is low are company's stock price and its outstanding shares. Since 2013 until 2017, the SIPD' stock price is always below IDR 1,000. However, there was a significant increase in stock price of SIPD in 2015, which is amounted to IDR 850 from IDR 53 in 2014. The Sierad Produce also has no additional paid-in capital component in their equity.

### Cash Value Added (CVA)

Table 9 until 12 below described the results of each variable needed to measure CVA value in each company. There are four variables to calculate CVA, such as gross fixed assets, economic depreciation, gross investment, and adjusted operating cash flow.

Table 9. CVA Calculation of CPIN

in Million Rupiah	2013	2014	2015	2016	2017
Gross Fixed Assets	8,272,926	11,378,243	14,398,467	15,620,626	16,175,998
Economic Depreciation	43,453	80,637	1,008,185	195,858	267,261
Gross Investment	14,770,778	16,920,890	20,725,419	21,909,014	22,893,176
Adjusted Operating Cash Flow	2,971,958	2,359,138	4,350,290	3,885,017	3,341,605
<b>CVA</b>	<b>889,187</b>	<b>288,240</b>	<b>1,488,223</b>	<b>1,360,411</b>	<b>1,286,060</b>

Source: Author, 2019

Table 10. CVA Calculation of JPFA

in Million Rupiah	2013	2014	2015	2016	2017
Gross Fixed Assets	7,784,933	9,319,060	10,285,223	9,251,093	10,717,206
Economic Depreciation	87,938	115,227	134,581	220,018	258,238
Gross Investment	12,473,622	13,164,751	14,589,528	14,987,566	17,258,772
Adjusted Operating Cash Flow	1,637,504	1,310,168	1,722,789	2,786,317	2,129,202
<b>CVA</b>	<b>139,839</b>	<b>- 295,625</b>	<b>- 269,877</b>	<b>1,163,028</b>	<b>873,388</b>

Source: Author, 2019

Table 11. CVA Calculation of MAIN

in Million Rupiah	2013	2014	2015	2016	2017
Gross Fixed Assets	1,621,967	2,195,863	2,599,889	2,924,613	3,214,563
Economic Depreciation	25,077	37,973	60,547	73,125	82,714
Gross Investment	1,622,476	2,328,651	3,107,015	3,210,572	3,044,076
Adjusted Operating Cash Flow	373,219	48,112	193,069	494,269	217,146
<b>CVA</b>	<b>175,098</b>	<b>- 226,294</b>	<b>- 116,047</b>	<b>201,314</b>	<b>- 8,176</b>

Source: Author, 2019

Table 12. CVA Calculation of SIPD

in Million Rupiah	2013	2014	2015	2016	2017
Gross Fixed Assets	2,412,197	1,778,570	1,812,938	1,843,083	1,993,507
Economic Depreciation	30,384	39,738	30,496	26,112	29,514
Gross Investment	2,590,828	2,295,860	1,911,564	2,265,865	2,089,568
Adjusted Operating Cash Flow	221,742	45,747	- 307,495	108,898	- 210,427
<b>CVA</b>	<b>- 47,329</b>	<b>- 169,906</b>	<b>- 482,989</b>	<b>- 90,905</b>	<b>- 333,123</b>

Source: Author, 2019

CVA shows an income in cash obtained by the company from its operating activities. According to the results of CVA calculation above, it can be seen that only CPIN who can generate CVA every year during the research period. The highest CVA in CPIN was happened in 2015. A high value of CVA will give benefit for the CPIN because it shows that CPIN is able to finance its subsequent. This condition also beneficial for investors because it shows CPIN's ability to generate cash from one period to next period, by creating liquid profits. This company's ability to generate profits should be able to increase the wealth of the shareholders, which is illustrated by the increase of stock returns.

Unlike CPIN, JPFA and MAIN have a fluctuated value of CVA. At first in 2013, JPFA and MAIN can generate cash value added but in the next year the CVA was negative. The negative value of CVA happened in 2014 and 2015. The factor that causes a company unable to generate CVA is the amount of adjusted operating cash flow is smaller than the capital charge. However, in 2016, both companies succeed to generate CVA again. Unfortunately, Malindo Feedmill unable to generate CVA in 2017 because of their gross investment was increase but the adjusted operating profit was decrease.

Sierad Produce unable to generate any CVA during five years' period. A negative value of CVA signifies a reduction of value. This also indicates that SIPD' shareholder value is negative and the CVA didn't exceed the real market cost of capital.

## CONCLUSION AND RECOMMENDATION

The Minister of Agriculture's policy to limit corn imports for feed since 2016 and zero imports in 2017 drives the economy of corn farmers. Previously, the national corn center was only in 10 provinces. With the program to expand the new planting area starting in 2017, the central area of maize has begun to spread to various other regions and has created a new center for corn. From 2015 – 2018, the corn harvest area increased significantly with a development average of 15.16% per year and production increased by an average of 15.6% per year. This significant increase was certainly triggered by the interest of farmers who began to grow to plant corn. The import restriction policy turned out to spur the spirit of corn farmers so they were able to meet domestic corn needs. It was proven that corn imports in 2016 were very small compared to 2015 which very high at 3.25 million tons. Even in 2017, Indonesia doesn't import corn. However, the Indonesia government should pay more attention to the corn price balance. If the corn price is too high, it will harm the breeder and integrated poultry companies. But if it's too low, it will harm the corn farmers.

The purpose of this study is to evaluate and compare the financial performance through value based measurement in four big poultry companies in Indonesia within the period of 2013 until 2017. It aims to make investors easier to choose which the best company to invested. Value-based measurement method includes the cost of capital in its calculations, so it can be used to calculate the value added in the company. This concept shows that value can be created if the company that invests its capital can get a return that exceeding the cost of capital. The value-based measurements that have been used are economic value added (EVA), market value added (MVA), and cash value added (CVA).

EVA becomes a useful tool for any investors or analyst to providing an external assessment measure of a company's performance and for ranking company performance in an industry. According to Savitria & Daryanto (2018), the goal of EVA measurement is whether a company with a large investment can produce a balanced return. From the calculation above, it can be conclude that none of these companies that consistently produce positive EVA value every year. However, if we look at the average, Charoen Pokphand Indonesia has the highest EVA value among the three other companies. It indicates that Charoen Pokphand Indonesia management has been effective in using the scarce capital resources.

According to the results of MVA calculation, Charoen Pokphand Indonesia also becomes the best company that generates the highest value of MVA. The higher MVA is better because it indicates that the company's management has been able to increase the company's wealth and shareholders or it can be said that the company's performance is good.

The CVA relies on adding the invested capital and depreciation to NOPAT in order to measure return on investment on a cash basis. This concept reflects the real increase in company's value over a reporting period in cash flow terms. Based on the results, it can be conclude that only Charoen Pokphand Indonesia who are able to generate positive CVA value every year during research period. It indicates that Charoen Pokphand Indonesia have added value to the shareholders' wealth. Charoen Pokphand

Indonesia could be generating a cash premium over expected levels create value. Thus, Charoen Pokphand Indonesia creating CVA is able to resolve the problem of insolvency.

The other countries especially who have same characteristic like Indonesia should learn from this study. Developing countries like Indonesia should pay more attention to integrated poultry business. As it mentions above that integrated poultry business is consist of poultry feed, day old chicks, and processed chicken. So this sector is very important for the society because people most often consume animal protein, especially chicken and eggs. The government should make policies that give a good impact for both companies as producer and society as consumer. The Indonesian government's decision to limit the import of corn as the main raw material in producing poultry feed with the aim of encouraging local production was good. But the government should also ensure that the production on the market could meet the demand for producing poultry feed and the need for direct consumption. This can prevent the price of corn as raw material being too high for the producer. So the integrated poultry companies could always produce good quality of poultry feed which will produce good quality chicken and eggs itself.

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