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FINANCE | RESEARCH ARTICLE

Comparison of Financial Performance in Pharmaceutical Industry Companies

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Abstract: This research aims to evaluate the financial performance of PT Kimia Farma (Persero) Tbk, PT Indofarma (Persero) Tbk, and PT Kalbe Farma (Persero) Tbk during the 2016-2022 period using liquidity, profitability, leverage, activity, and efficiency ratios as comparison metrics. The research applies quantitative descriptive analysis through ratio calculations, and is classified as explanatory research with a quantitative approach. The DuPont System Analysis, which highlights the Net Profit Margin, is also employed. The findings reveal that PT Kalbe Farma (Persero) Tbk and PT Kimia Farma (Persero) Tbk showed improved financial performance in 2016-2022, characterized by an increasing liquidity ratio, indicating better debt management. In contrast, PT Indofarma (Persero) Tbk experienced a decline in its liquidity ratio, signifying poorer debt management. Additionally, all three companies—PT Kalbe Farma (Persero) Tbk, PT Indofarma (Persero) Tbk, and PT Kimia Farma (Persero) Tbk—saw declining profitability ratios during this period, reflecting lower profits, which can be considered unfavorable. Overall, while PT Kalbe Farma (Persero) Tbk and PT Kimia Farma (Persero) Tbk had relatively stable financial performance, PT Indofarma (Persero) Tbk's performance was less favorable throughout 2016-2022.

Keywords: Financial Performance, Liquidity Ratio, Profitability Ratio, Leverage Ratio, Activity Ratio, Efficiency Ratio.

JEL Classification Code: G30, G32, L65, M41

1. INTRODUCTION

The purpose of this research is to provide an assessment of the financial condition and performance of PT. Kalbe Farma (Persero) Tbk, PT. Indofarma (Persero) Tbk, and PT. Kimia Farma Persero Tbk for the 2016-2022 period. To contribute information and scientific insight to understand indicators of liquidity ratios, profitability ratios, leverage ratios, activity ratios, and company efficiency ratios on financial performance in pharmaceutical companies. This research can be used as an additional reference for conducting ratio analysis of financial reports and their influence on financial reports and can be a reference and further information for subsequent research regarding liquidity ratios and company size on financial performance; then, it can also contribute ideas to organizations, especially in the field of financial management.

The growth and development of the country's economy is essential in improving the prosperity of society, especially for Indonesia, which is still classified as one of the developing countries in the world. Of course, to develop the country's economy, every company is expected to contribute to it. Companies' contribution to growing the economy triggers competition to gain as much profit as possible. Companies must have new strategies and innovations to win the market and perform performance assessments, especially in finance, to obtain optimal profits. Companies need to pay attention to their financial performance so far because financial performance can provide an overview of the company's condition and be used as a consideration in making decisions. The financial performance is a financial picture in a certain period, both in collecting and distributing funds. It is usually measured by indicators of capital adequacy, liquidity, and profitability (Jumingan, 2005). Meanwhile, according to IAI (2007), financial performance is a company's ability to manage and

control its resources. To assess the company's financial performance, it is necessary to carry out a financial ratio analysis, which can be reviewed from the financial reports.

Financial ratio analysis can carry out two comparisons, namely a comparison of the current ratio with the previous year's ratio (Time et al.) and a comparison of the ratio between two companies (Cross-Sectional Approach). Financial ratios include profitability, liquidity, solvency, activity, and market valuation ratios. In this research, the author will use liquidity, profitability, leverage, activity, and efficiency ratios as variables analyzed to assess and compare the company's financial performance. The liquidity ratio relates to the company's ability to fulfill financial obligations, which include short-term debt that must be fulfilled immediately (Riyanto, 2010). The liquidity ratios often used in analyzing financial reports are the current ratio, cash ratio, quick ratio, cash turnover ratio, and inventory to net working capital (Kasmir, 2013). According to Kasmir (2013), the profitability ratio assesses a company's ability to gain profits or profits. This ratio also provides an overview of the effectiveness of management in managing a company. Apart from that, the profitability ratio also provides the final answer about whether or not a company's performance is effective in maintaining that every management party is required to achieve the targets set by the company. Solvency or leverage is a ratio that shows a company's ability to fulfill all its financial obligations if liquidated (Riyanto, 2010). In other words, it shows how much a company's assets or capital are used to cover its liabilities. Thus, this ratio shows the company's ability to pay its short-term and long-term debt obligations.

According to Kasmir (2013), the activity ratio is a ratio used to measure the level of effectiveness of a company in using the assets owned by the company. This ratio shows how effectively the company utilizes all the available resources, and there should be a proper balance between sales and asset elements such as inventory, fixed assets, and other assets. According to Mardiasmo in Helly Aroza Siregar (2016), the efficiency ratio is a comparison between output or input linked to performance standards or targets that have been set. Meanwhile, according to Halim in Helly Aroza Siregar (2016), the efficiency ratio is a ratio that describes the comparison between the amount of expenditure incurred by the regional government and the realized income (revenue) received.

The objects used in this research are three companies operating in the pharmaceutical sub-sector that are currently competing, namely PT. Kimia Farma (Persero) Tbk, company PT. Indofarma (Persero) Tbk and the company PT. Kalbe Farma (Persero) Tbk. These three companies are BUMN (State-Owned Enterprises) registered with the Indonesian Stock Exchange. PT, Kimia Farma (Persero) Tbk is Indonesia's first pharmaceutical industrial company, founded by the Dutch East Indies Government in 1817. The name of this company was originally NV Chemicalien Handle Rathkamp & Co, but it has now changed to PT. Kimia Farma (Persero). This company has developed rapidly, and several awards have proven it has won in recent years, such as 1st Champion of Indonesia Original Brand 2018 and HR Asia; Best Companies To Work For in AsiaTM (Chapter Indonesia) 2016. Meanwhile, competitor companies from PT. Kimia Farma (Persero) Tbk, namely PT. Indofarma (Persero) Tbk. This company has been established since 1918. This company produces various pharmaceutical products and has become a multinational company. Meanwhile, the competitor company PT. Kimia Farma (Persero) Tbk, namely PT. Indofarma (Persero) Tbk. This company has been established since 1918.

This company produces various pharmaceutical products and has become a multinational company that competes with PT. Kimia Farma (Persero) Tbk and PT. Indofarma (Persero) Tbk, namely PT. Kalbe Farma (Persero) Tbk is one of Indonesia's largest health service provider companies. The company has advantages with expertise in marketing, branding, distribution, finance, and research and development. PT Kalbe Farma is a company that was founded in 1966. Kalbe has come a long way from a simple garage business to becoming Indonesia's leading pharmaceutical company. Through organic growth and business mergers and acquisitions, Kalbe has become an integrated health solutions provider. The pharmaceutical industry is expected to dominate the domestic and export markets. Moreover, the Indonesian government is increasing access to health services for the entire community (www.Kemenperin.go.id). Based on Table 1, it can be seen that at PT. Kimia Farma (Persero) Tbk has high annual asset sales and profits and continues to increase continuously. PT obtained the highest profit. Kimia Farma (Persero) Tbk existed in 2018 with an amount of Rp. 401.792.808.948. This proves the company's good performance and the management's success in

managing the company. However, not all pharmaceutical companies are performing well and making profits, and there are significant differences, as evidenced in the following tables.

Table. 1. Sales Data, Total Assets and Profit/Loss at PT. Kimia Farma (Persero) Tbk. PT. Indofarma (Persero) Tbk. PT. Kalbe Farma (Persero)

Company	Year	Sales (Rp)	Total Assets (Rp)	Profit/Loss (Rp)
PT. Kimia Farma (Persero) Tbk.	2016	5,811,502,656,431	4,612,562,541,064	271,597,947,663
	2017	6,127,479,369,403	6,096,148,972,534	331,707,917,461
	2018	7,454,114,741,189	9,460,427,317,681	401,792,808,948
	2019	9,400,535,476	18,352,877,132	15,890,439
	2020	10,006,173,023	17,562,816,674	(65,354,454)
	2021	12,857,626,593	17,760,195,040	289,888,789
	2022	9,606,145,359	20,353,992,893	(109,782,957)
PT. Indofarma (Persero) Tbk	2016	1,674,702,722,328	1,381,633,321,120	(17,637,399,212)
	2017	1,631,317,499,096	1,529,874,782,290	(46,284,759,301)
	2018	1,592,979,941,258	1,442,350,608,575	(32,736,482,313)
	2019	1,359,175,249,655	1,383,935,194,386	7,961,966,026
	2020	1,715,587,654,399	1,713,334,658,849	30,020,709
	2021	2,901,986,532,879	2,011,879,396,142	(37,571,241,226)
	2022	1,144,108,230,724	1,534,000,446,508	(428,487,671,595)
PT. Kalbe Farma (Persero) Tbk	2016	19,374,230,957,505	15,226,009,210,657	2,350,884,933,551
	2017	20.182.120.166.616	16,616,239,416,335	2,453,251,410,604
	2018	21,074,306,186,027	18.146.206.145.369	2,497,261,964,757
	2019	22,226,912,485,948	7,120,602,478,197	580,814,677,453
	2020	22,545,419,368,639	7,540,695,065,075	679,870,547,997
	2021	25,673,756,765,637	9,697,945,171,710	851.759.722.494
	2022	28,027,488,218,598	10.198.295.220.571	840.439.909.007

Based on Table 1, it can be seen that PT. Indofarma (Persero) Tbk experienced losses from 2016 to 2018; the largest loss occurred in 2017, namely Rp. 46,284,759,301. experienced a profit again from 2018 to 2020 and again experienced a loss from 2021 to 2022; the biggest loss from 2016 to 2022 was IDR. 428,487,671,595. This was accompanied by fluctuations in the company's total assets during these several periods. Apart from that, the company's sales also experienced a decline, even though they increased in 2016 and amounted to Rp. 1,674,702,722,328, and the year after, it experienced a decrease and increased again in 2021, amounting to Rp. 2,901,986,532,879 and will decline again in 2022. This proves that the company's performance needs to improve, which will result in losses for the company's investors. Based on Table 1, it can be seen that PT. Kalbe Farma (Persero) Tbk experienced profits from 2016 to 2018, and the largest profit was IDR. 2,497,261,964,757, and from 2019 to 2022, experienced the largest loss and loss in 2019, namely Rp. 580,814,677,453. Apart from that, the company's sales also increase every year.

From the explanation above, we can see that a phenomenon occurs in these two companies: PT. Kalbe Farma (Persero) Tbk has a higher sales value, assets, and profits than PT. Kimia Farma (Persero) Tbk and PT. Indofarma (Persero) Tbk from 2016 to 2018. Even though the three companies operate in the same field and are state-owned, the three companies have different financial conditions. Several previous studies discussed company financial performance and proved differences in economic performance in companies (Rifany et al., 2016; Sobari et al., 2019). Based on the background stated above, the problem formulated is whether the financial performance of PT. Kalbe Farma (Persero) Tbk, PT. Indofarma (Persero) Tbk, and PT. Kimia Farma (Persero) Tbk experienced growth in 2016-2022.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

In this research, the researcher will explain the research of Rifany Angelia Ratu (2016) that there are significant differences in the Current Ratio, Debt to Asset Ratio, and Return on Assets of PT KimiaFarma Tbk and PT Kalbe Farma Tbk. There are no significant differences in the Price Earning Ratio of PT Kimia Farma Tbk and PT Kalbe Farma Tbk. Ismi Ismawati (2021), financial

performance is the same before and after the Covid-19 pandemic. Wau editor Achmad Syarifuddin Rudi Herwanto (2017) stated that the financial performance of the pharmaceutical sub-sector, when measured by economic value added (EVA) analysis, shows that PT. Kalbe Farma, Tbk, is a company that can create the best monetary value. Ratih FD Simbolon Moch. Dzulkrirom Muhammad Saifi (2014) stated that the negative EVA value at PT is Kimia Farma (Persero), Tbk IDR. Pyridam Farma, Tbk Rp.-4,782,389,278 (2010). Lia Candrayani, Ziana Fitri, and Kharis Fadlullah Hana (2020) state that in the ROE analysis of state-owned pharmaceutical companies, there is no significant difference in the EPS percentage of BUMN.

Nabila Awalya, Yusrizal Firdaus, and Marieska Lupikawaty (2022) that the financial performance of PT Indofarma (Persero) Tbk, seen from the profitability ratio, can be said to be not good. PT Indofarma (Persero) Tbk From the research results, the ROE and ROI values experienced losses from 2016-2018 and experienced a slight improvement in profits in 2019-2020. Indah Krismonica, Edduar Hendri, and Tri Sinarti (2021) that financial performance in PT. Sido Muncul Herbal Medicine and Pharmaceutical Industry, Tbk. (SIDO) is a company with the best return rate on investment, then PT Indofarma, Tbk. Has the lowest level of return on investment. Meanwhile, using the Economic Value Added (EVA) method, financial performance can be categorized as poor because companies still need to succeed in building economic-added value. Sobari, Titing Suharti, and Supramono (2019) state that PT Kalbe Farma Tbk has an investment return rate of 19.99 percent during PT. Kimia Farma, Tbk obtained 12.05 percent and PT. Darya-Varia Laboratoria Tbk obtained an average of 12.44 percent.

Financial management is no longer foreign to our ears; it is one of the functional areas of a company, apart from marketing and production. Financial management discusses how a company can meet the need for funds with various alternatives and use these funds for profitable investments, as well as how the company manages the use of profits and distributes them (IM Sudana, 2019). According to (Najmudin, 2011), financial management means business-related activities obtain funds and distribute these funds based on planning, analysis, and control, by in-depth needs management principles. The acquisition and distribution of these funds must be considered for effectiveness and efficiency (needs). According to (Fahmi, 2013), this combines science and art. Discuss, research, and analyze how multi-purpose financial managers manage company resources to raise funds. The purpose of funding and distribution of funds is to provide profits or shareholder wealth and the sustainability of the company's business—several definitions of financial management. The function of financial management is Financial Planning, namely making income and expenditure plans and other activities for a certain period. Financial Budgeting is a follow-up to financial planning by making detailed expenditures and income. Financial management uses company funds to maximize existing funds in various ways. Financial Search, namely searching for and exploiting existing sources of funds for the company's operational activities. Financial Storage is collecting company funds and storing these funds safely. Financial Control involves evaluating and improving the company's finances and financial systems. Financial Audit: Conduct an internal audit of the company's finances to prevent irregularities.

Financial ratio analysis can predict future financial conditions and business results. Financial ratio analysis can help business people, the government, and other financial report users assess a company's financial condition. Ratio analysis is intended to determine the relationship between accounts in the financial statements, both in the balance sheet and income statement. Financial ratio analysis describes a relationship and comparison between the number of one account and the number of other accounts in the financial statements (Sujarweni & Wiratna., 2017). According to (Brigham and Houston, 2012), financial ratios help anticipate future conditions; more importantly, they are the starting point for planning actions to improve future performance. According to Henry (2018), it compares one financial report item and another post with a relevant and significant relationship. According to Kasmir (2019), it is an activity that compares the numbers contained in financial reports by dividing one number by another. These numbers can be compared in the form of numbers in one period or several periods.

The relative ease of an asset being immediately converted into cash with little or no decline in value, as well as the level of certainty regarding the amount of cash that can be obtained. Cash is the most liquid asset. According to (Fahmi, 2017), liquidity is the ability of a company to fulfill its short-

term obligations promptly. Liquidity indicates a company's ability to pay all short-term financial obligations at maturity using available current assets. Liquidity relates to the company's overall economic condition and ability to convert certain current assets into cash (L. Syamsuddin, 2009). The benefit of the overall liquidity ratio (Hery, 2015) is to measure the company's ability to pay obligations or debts that will soon mature. To measure the company's ability to pay short-term obligations using total current assets. To measure the company's ability to pay short-term obligations using very current assets (without considering inventory of merchandise and other current assets). To measure the level of company cash availability to pay short-term debt. It is a planning tool for the future, especially for short-term cash and debt planning. To see the condition and liquidity position of the company from time to time by comparing it over several periods.

Profitability Ratios According to Brigham & Houston (2015), profitability ratios are a group of ratios that can show the influence of debt, asset management, and liquidity on the company's operating results. Profitability is also a measure of company performance that reflects all financial policies and operational decisions. The profitability ratio is a ratio that illustrates the level of effectiveness of company management in generating profits. This ratio measures whether the owner or shareholder can obtain an appropriate rate of return on their investment. Sudana (2011) measures a company's ability to generate profits by utilizing available resources, such as assets, capital, and company sales.

The leverage ratio is used to measure the proportion of debt to capital. This ratio helps compare the amount of funds provided by creditors and the amount of funds originating from the company owner. According to Kasmir (2017), the activity ratio measures a company's effectiveness in using its assets, including its efficiency in utilizing its resources. This activity ratio can be determined using Receivable Turnover, Inventory Turnover, Asset Turnover, and Total Asset Turnover. Efficiency ratio According to (Abdul & Muhammad, 2019), efficiency is the ratio that compares the input used to the output produced. According to (Mardiasmo, 2009), efficiency is achieving maximum production with specific inputs or using the lowest input to achieve a particular output. Efficiency is a comparison of output/input related to performance standards or targets that have been set.

Financial performance illustrates the company's success, which can be interpreted as the results of the various activities that have been carried out. It can be explained that financial performance is an analysis carried out to see the extent to which a company has implemented financial implementation rules properly and correctly (Fahmi, 2012). Financial performance is an activity carried out by a company to measure the company's achievements in using capital effectively and efficiently to achieve company goals. Company performance is the company's ability to manage and allocate its resources. Financial performance assessment is one of the methods used by management to obtain results shown in financial reports, so the measurement results from these financial reports are significant for funders in seeing the potential or condition of the company. According to Rudianto (2013: 189), financial performance is needed by companies to know and evaluate the level of success of the company based on the financial activities that have been carried out. Olson et al. (2012) revealed that decision trees are more effective in predicting bankruptcy than neural networks and support vector machines. Financial performance by Chiadamrong and Wattanawarangkoon (2023) developed a predictive model by considering internal factors using multiple linear regression and logistic regression techniques. The results show that companies need to maintain various levels of determinants throughout the operating years to achieve improved financial performance.

3. RESEARCH METHOD AND MATERIALS

The type of research is quantitative descriptive using Du-Pont analysis. Du Pont System Analysis is an analysis system intended to show net profit margin (NPM), total assets turnover (TATO), and return on investment (ROI), which interact with each other to determine return on equity (ROE). This type of research is descriptive research with a quantitative approach. The research was conducted at the Investment Gallery of the Indonesian Stock Exchange, Muhammadiyah University of Makassar on Jln. Sultan Alauddin No.295, Tel No. 0411-866972, Postal Code 90221, Makassar City, South Sulawesi Province. The research period was carried out for 2 (two) months, namely from December 2023 to January 2024. The unit of analysis for this research is comparing financial performance at

PT. Kalbe Farma (Persero) Tbk, PT. Indofarma (Persero) Tbk, and PT. Kimia Farma (Persero) Tbk in 2016-2022. The data analysis technique uses comparative ratio analysis between years, between ratios, and between companies. The ratios used are liquidity ratios using current ratio and quick ratio measuring instruments; profitability ratios using return on assets and return on equity measuring instruments; leverage ratios using debt to asset ratio and debt to equity ratio measuring instruments; activity ratios using measuring instruments asset turnover, receivable turnover, and sales, and finally the efficiency ratio with measuring days of inventory and operational costs to net sales.

4. RESULTS AND DISCUSSION

4.1. Result

The current ratio has decreased. The highest current ratio value occurred in 2018 at 466% before the Covid-19 pandemic outbreak. The lowest current ratio value occurred in 2020, reaching 412%. Meanwhile, PT Kimia Farma Tbk's current ratio also tends to shrink; this can be seen in 2019 and 2020. The current ratio tends to shrink from the previous period, but in 2021, the company succeeded in increasing again with an increase of 15%. Meanwhile, PT Indofarma Tbk's current ratio also tends to shrink; this can be seen in 2019 and 2020. The current ratio tends to shrink from the previous period until 2022, and the lowest value occurred in 2022, reaching 88%. The results of the ratio calculation of the finances

Table 1. Current Ratio Data

Current Ratio	2016	2017	2018	2019	2020	2021	2022
PT. Kalbe Farma (Persero) Tbk	413%	451%	466%	435%	412%	445%	377%
PT. Indofarma (Persero) Tbk	121%	104%	105%	188%	136%	135%	88%
PT. Kimia Farma (Persero) Tbk	171%	155%	134%	99%	90%	105%	105%

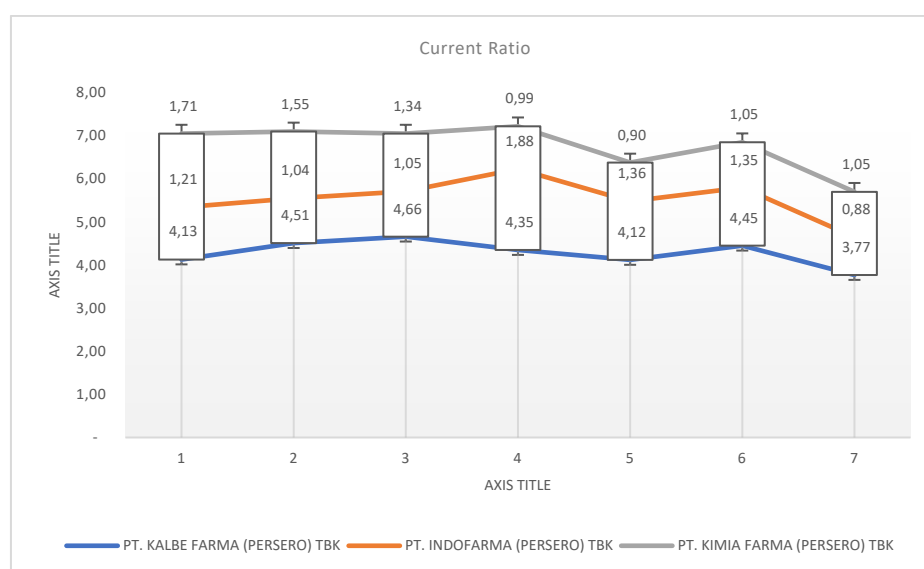


Figure 1. Results of Current Ratio Calculation for Three Pharmaceutical Industries

The quick ratio value of PT Kimia Farma Tbk for 2018 and 2019 tended to decrease in 2020. The quick ratio value decreased by 54%, but in 2021, the company succeeded in increasing the quick ratio value again, even though it only increased 6% at PT. Kalbe Farma Tbk's quick ratio value tends to grow even though in 2022, the quick ratio value will shrink by 82% while at PT. Indofarma Tbk's highest quick ratio value occurred in 2019 at 154%; in 2022, it tends to decrease by 40%. A high quick ratio value indicates the company's ability to pay current debt obligations.

Table 2. Quick Ratio Data

Quick Ratio	2016	2017	2018	2019	2020	2021	2022
PT. Kalbe Farma (Persero) Tbk	269%	291%	314%	290%	298%	301%	219%
PT. Indofarma (Persero) Tbk	79%	76%	79%	154%	118%	103%	63%
PT. Kimia Farma (Persero) Tbk	114%	104%	90%	61%	54%	60%	66%

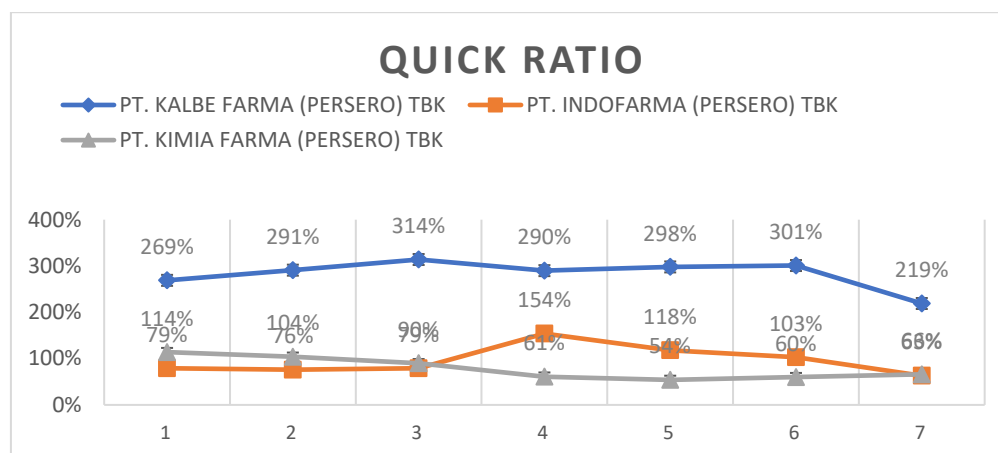


Figure 2. Quick Ratio Calculation Results for Three Pharmaceutical Industries

ROA value of PT. Kalbe Farma Tbk tends to be stable even though it has experienced several declines; this can be seen from the number of declines, which were not too drastic; for seven years, the lowest ROA value occurred in 2020, which reached 1240%—meanwhile, the ROA value at PT. Indofarma Tbk tends to be unstable, drastically declining in 2022, reaching 2606%. Meanwhile, 2022 is the year with the lowest ROA, reaching -2793% at PT. Kimia Farma's ROA value tends to be stable, and even though 2022 will experience a decline of 254%, the lowest ROA value will occur in 2022 when it reaches 84%.

Table 3. Data on Return on Assets

Return On Assets (ROA)	2016	2017	2018	2019	2020	2021	2022
PT. Kalbe Farma (Persero) Tbk	1510%	1447%	1380%	1250%	1240%	1260%	1270%
PT. Indofarma (Persero) Tbk	-125%	-303%	-227%	58%	0.00	-187%	-2793%
PT. Kimia Farma (Persero) Tbk	580%	536%	434%	-7%	10%	170%	-84%

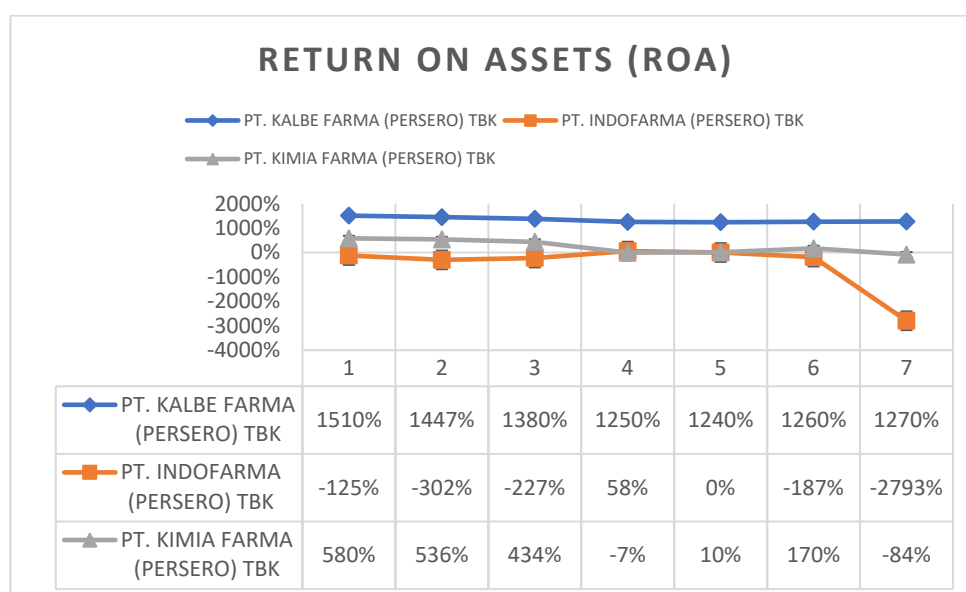
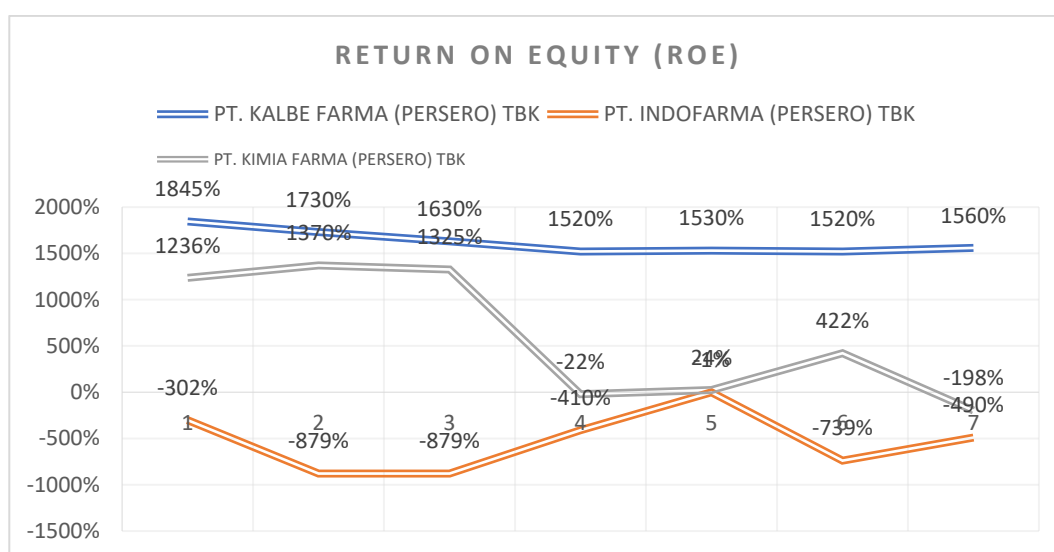


Figure 3. Return on Asset (ROA) Calculation Results for Three Pharmaceutical Industries

ROE value of PT. Kalbe Farma Tbk fluctuates but is still stable; for seven years, the lowest ROE value occurred in 2019 and 2021, reaching 1520%, with a decline in 2019 of 110% and 2021 of 10%—meanwhile, the ROE value of PT. Indofarma Tbk tends to decline, with a drastic decrease in 2019 to 577%, the lowest year for PT. Indofarma Tbk. Meanwhile, the ROE value of PT. Kimia Farma Tbk is relatively stable, with a drastic decline in 2022, reaching 620%. 2022 is also the year with the lowest ROE, reaching -198%.

Table 4. Data on Return On Equity

Return on Equity (ROE)	2016	2017	2018	2019	2020	2021	2022
PT. Kalbe Farma (Persero) Tbk	1845%	1730%	1630%	1520%	1530%	1520%	1560%
PT. Indofarma (Persero) Tbk	-320%	-879%	-879%	-410%	-1%	-739%	-490%
PT. Kimia Farma (Persero) Tbk	1236%	1370%	1325%	-22%	24%	422%	-198%

**Figure 4. Return on Equity (ROE) Calculation Results from Three Pharmaceutical Industries**

NIM PT. Kalbe Farma Tbk is relatively stable; the highest point in 2017 was 1191%; in 2019, it decreased quite drastically by 1110% during the COVID-19 pandemic—meanwhile, the NIM value of PT. Indofarma Tbk tends to decline, but in 2019, it increased by 2359%; for seven years, the lowest point for NIM was 2016 at -125%, meanwhile at PT. Kimia Farma Tbk's NIM value tends to be less stable even though it has decreased several times; this can be seen from the number of decreases that were not too drastic over seven years; the lowest NIM value occurred in 2022, which reached -539%.

Table 5. Data on Net Interest Margin

Net Interest Margin	2016	2017	2018	2019	2020	2021	2022
PT. Kalbe Farma (Persero) Tbk	1187%	1191%	1170%	1110%	1180%	1210%	1170%
PT. Indofarma (Persero) Tbk	-1257%	-3%	-2%	2359%	-21%	4%	-9%
PT. Kimia Farma (Persero) Tbk	5888%	5441%	-4247%	86%	116%	1632%	-539%

PT. DAR value. Kalbe Farma Tbk is relatively stable; during the seven highest ADR points in 2020, it was 510%, while the DAR value of PT. Indofarma was unstable in 2020, increasing by 7488%, but it shrank in 2021, although not much, namely 15%, and increased again the following year by 9437%—meanwhile, the DAR value of PT. Kimia Farma is relatively stable even though it increased 2018 by 65% and decreased again until 2022; for 7 years, the lowest point for DAR was 2016 at 51%.

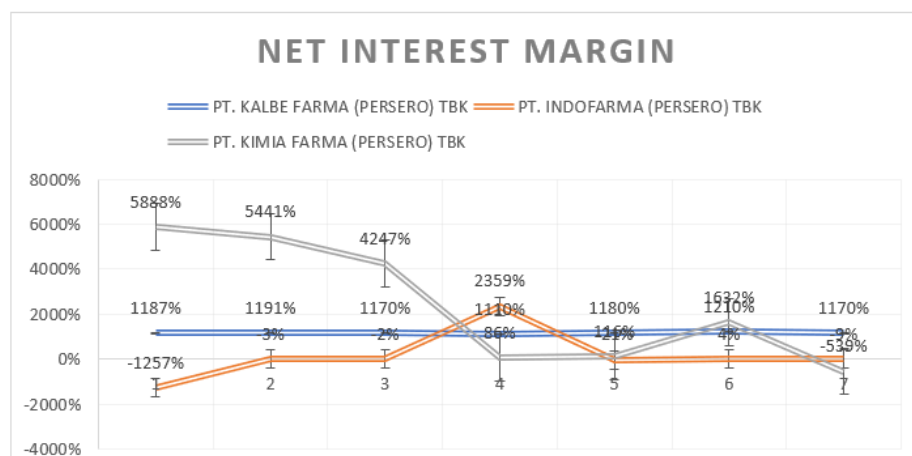


Figure 5. Net Interest Margin (NIM) Calculation Results from Three Pharmaceutical Industries

Table 6. Data on Debt to Asset Ratio

Debt to Asset Ratio (DAR)	2016	2017	2018	2019	2020	2021	2022
PT. Kalbe Farma (Persero) Tbk	184%	190%	200%	400%	510%	240%	430%
PT. Indofarma (Persero) Tbk	5833%	6560%	6557%	6351%	7488%	7473%	9437%
PT. Kimia Farma (Persero) Tbk	51%	58%	65%	60%	60%	59%	54%

PT's DER value. Kalbe Farma Tbk's highest point in 2020 was 630%, and the lowest DER value occurred in 2018 at 230%. Meanwhile, the DER value of PT. Indofarma last night for seven years, the highest DER point was 290%, and the lowest was 130% in 2016—meanwhile, the DER value of PT. Kimia Farma Tbk increased in 2018, namely 182%, and in the following year, it shrank again until 2022; the lowest point for DER was 103% in 2016.

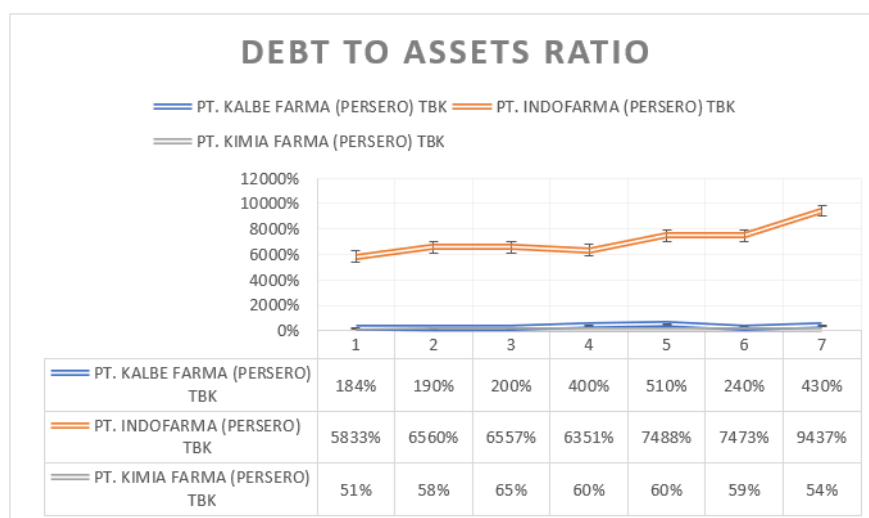


Figure 6. Debt to Asset Ratio (DAR) Calculation Results for Three Pharmaceutical Industries

Table 7. Debt to Equity Ratio Data

Debt to Equity Ratio	2016	2017	2018	2019	2020	2021	2022
PT. Kalbe Farma (Persero) Tbk	224%	227%	230%	490%	630%	290%	530%
PT. Indofarma (Persero) Tbk	130%	190%	190%	170%	290%	290%	160%
PT. Kimia Farma (Persero) Tbk	103%	137%	182%	148%	147%	146%	116%

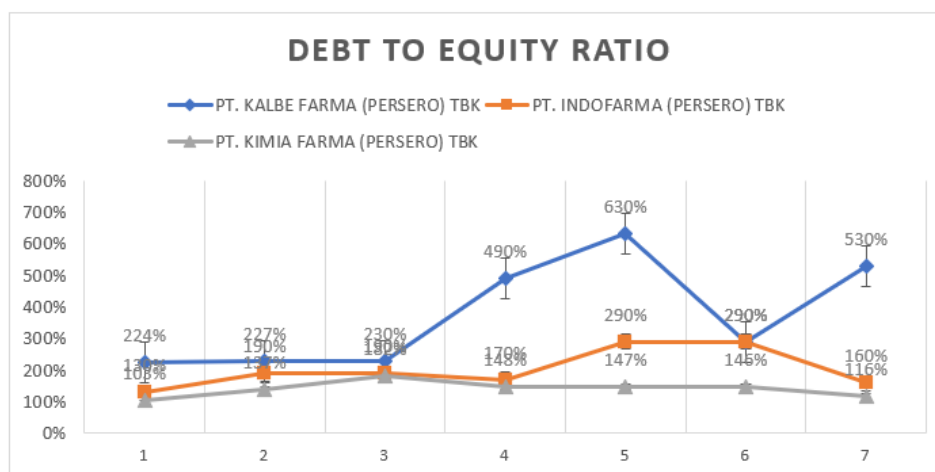


Figure 7. Calculation Results of Debt-to-Equity Ratio (DER) for Three Pharmaceutical Industries

PT ATO value. Kalbe Farma Tbk was the largest in 2016, increasing yearly, except in 2018, when ATO decreased drastically by 16% and increased annually the following year—meanwhile, the ATO value of PT. Indofarma Tbk's most significant in 2021 was 144%; for seven years, the lowest point for ATO value was 98% in 2019—meanwhile, PT. Kimia Farma Tbk 2019 decreased during the COVID-19 pandemic by 3375% from the previous year, which increased quite drastically; the highest value in 2018 was 9709%.

Table 8. Assets Turnover Data

Assets Turnover	2016	2017	2018	2019	2020	2021	2022
PT. Kalbe Farma (Persero) Tbk	127%	127%	116%	112%	102%	102%	106%
PT. Indofarma (Persero) Tbk	121%	102%	110%	98%	110%	144%	141%
PT. Kimia Farma (Persero) Tbk	1480%	1278%	9709%	6334%	5572%	7280%	5041%

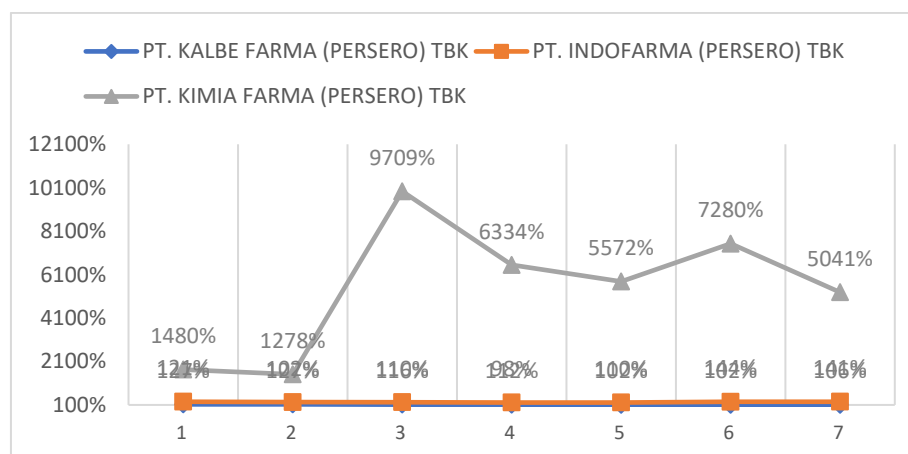
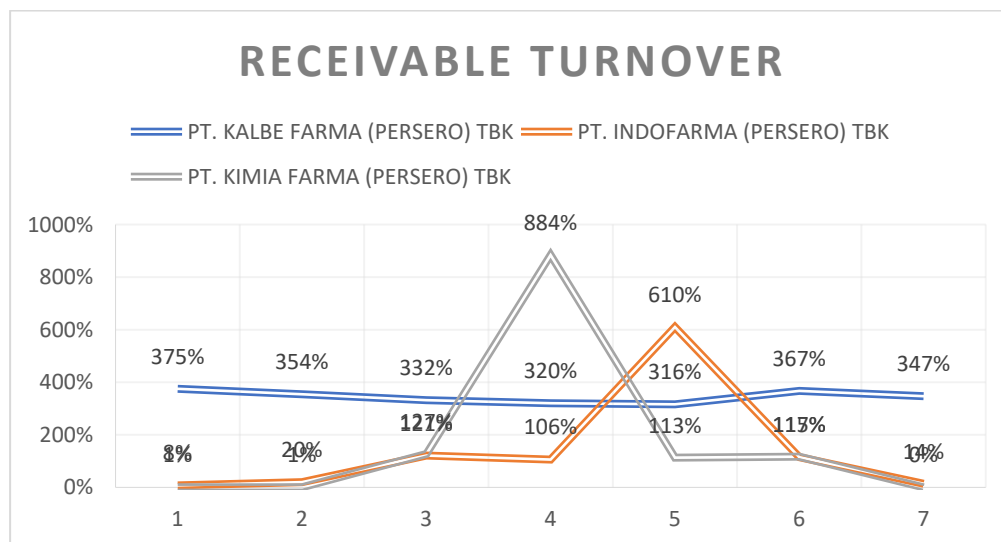


Figure 8. Assets Turnover from Three Pharmaceutical Industries

PT RTO value. Kalbe Farma Tbk for seven years, the highest point was 375%. The following year, it continued to decline until 2021, increasing from previous years by 367%, then decreasing again, although not too drastically, namely 20%—meanwhile, the RTO value of PT. Indofarma Tbk in 2020 amounted to 610% and decreased quite drastically in 2021, amounting to 495%. While the RTO value of PT. Kimia Farma Tbk for seven years, the highest point was 884% in 2020, and the lowest was 0% in 2022.

Table 9. Receivable Turnover Data

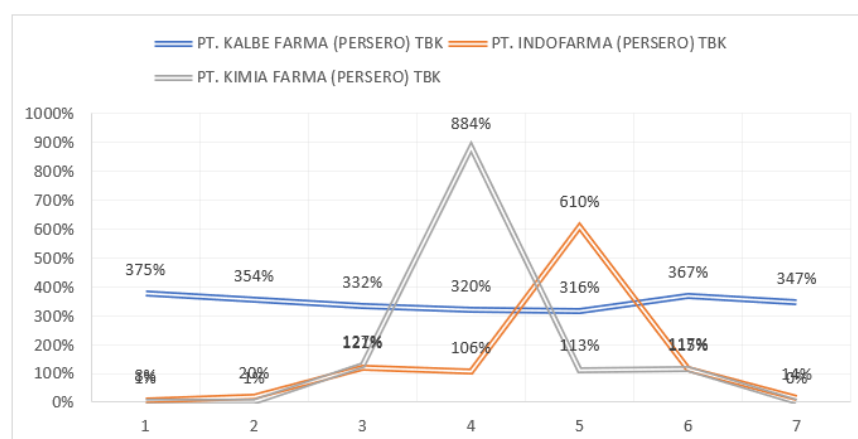
Receivable Turnover	2016	2017	2018	2019	2020	2021	2022
PT. Kalbe Farma (Persero) Tbk	375%	354%	332%	320%	316%	367%	347%
PT. Indofarma (Persero) Tbk	8%	20%	121%	106%	610%	115%	14%
PT. Kimia Farma (Persero) Tbk	1%	1%	127%	884%	113%	117%	0

**Figure 9. Receivable Turnover from Three Pharmaceutical Industries**

Sales value of PT. Kalbe Farma Tbk for seven years, the highest point was 375%. The following year, it continued to decline until 2021, increasing from previous years by 367%, then decreasing again, although not too drastically, namely 20%—meanwhile, the sales value of PT. Indofarma Tbk in 2020 amounted to 610% and decreased quite drastically in 2021, amounting to 495%. While the sales value of PT. Kimia Farma Tbk for seven years, the highest point was 884% in 2020, and the lowest was 0% in 2022.

Table 10. Sales Data

Sale	2016	2017	2018	2019	2020	2021	2022
PT. Kalbe Farma (Persero) Tbk	375%	354%	332%	320%	316%	367%	347%
PT. Indofarma (Persero) Tbk	8%	20%	121%	106%	610%	115%	14%
PT. Kimia Farma (Persero) Tbk	1%	1%	127%	884%	113%	117%	0

**Figure 10. Sales Results from Three Pharmaceutical Industries**

PT DOI value. Kalbe Farma is relatively stable, although there are some declines but not much; the lowest point of DOI value was 5685% in 2020 and increased again in the following year; for seven years, the highest point was in 2022 at 9125%—meanwhile, the DOI value of PT. Indofarma

Tbk from 2016 to 2020 continued to decline until 2021, when it increased by 1566% and decreased again in 2022, although not drastically, namely 1548%—meanwhile, the DOI value of PT. Kimia Farma Tbk's lowest point in 2019 was 1106%, and the highest point in 2020 was 8956%.

Table 11. Day of Inventory Data

Day Of Inventory	2016	2017	2018	2019	2020	2021	2022
PT. Kalbe Farma (Persero) Tbk	6303%	6437%	6155%	6033%	5685%	7073%	9125%
PT. Indofarma (Persero) Tbk	6373%	5698%	4938%	3977%	3080%	4646%	3098%
PT. Kimia Farma (Persero) Tbk	6075%	7103%	8842%	1106%	8958%	7639%	1207%

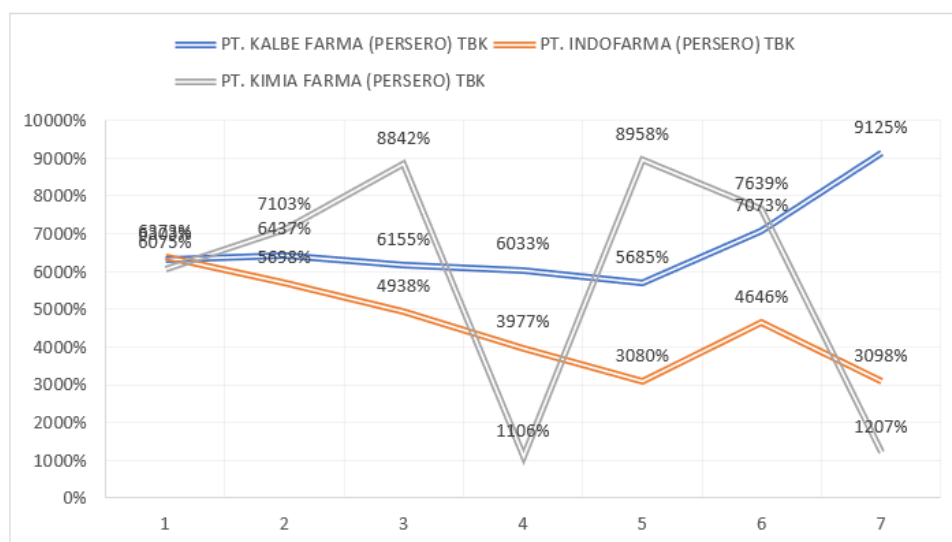


Figure 11. Day of Inventory Calculation Results for Three Pharmaceutical Industries

The value of *operational costs to net sales* of PT. Kalbe Farma Tbk in 2016 was 32%, decreased in 2017 by 25%, and increased again in 2019 to 22%; for seven years, the lowest point was in 2017 and 2018 at 7%—meanwhile, the value of *operational costs to net sales* of PT. Indofarma Tbk's most significant in 2022 is 51%, and the lowest is 6% in 2021—meanwhile, the *operational costs to the net sales value* of PT. Kimia Farma Tbk fluctuates for seven years. The lowest point was in 2016 at -26%.

Table 12. Operational Costs To Net Sales Data

Operational Costs To Net Sales	2016	2017	2018	2019	2020	2021	2022
PT. Kalbe Farma (Persero) Tbk	32%	7%	7%	29%	27%	26%	25%
PT. Indofarma (Persero) Tbk	17%	16%	17%	16%	16%	6%	51%
PT. Kimia Farma (Persero) Tbk	-68%	-64%	-62%	-62%	-63%	-65%	-62%

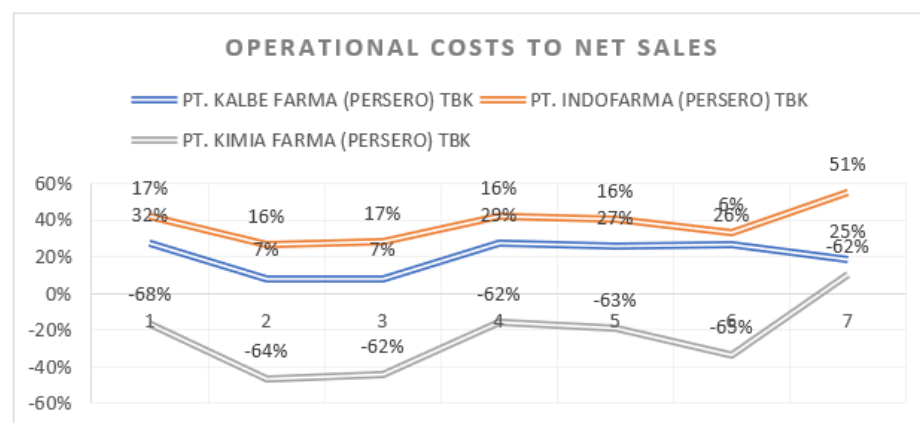


Figure 12. Calculation Results of Operational Costs to Net Sales from Three Pharmaceutical Industries

4.2. Discussion

This discussion is focused on seeing differences in financial performance at PT. Kalbe Farma (Persero) Tbk, PT. Indofarma (Persero) Tbk, and PT. Kimia Farma (Persero) Tbk for the 2016-2022 period. This research uses a quantitative descriptive method using ratio calculations in Figure 4.1, Current Ratio in 2019 PT. Kimia Farma (Persero) Tbk and PT. Indofarma (Persero) Tbk increased due to decreasing debt but at PT. Kalbe Farma (Persero) Tbk declined due to increasing debt. The three companies have different liquidity structures, resulting in differences in liquidity. In Figure 4.2, Quick Ratio in 2019 PT. Indofarma (Persero) Tbk increased due to decreased debt from liquid current assets but at PT. Kalbe Farma (Persero) Tbk and PT. Kimia Farma (Persero) Tbk decreased due to debts greater than liquid current assets. And in 2022, PT. Kalbe Farma (Persero) Tbk and PT. Indofarma (Persero) Tbk decreased due to debts greater than liquid current assets, whereas at PT. Kimia Farma (Persero) Tbk increased due to smaller debt than liquid assets.

Return On Assets (ROA) in 2018 PT. Indofarma (Persero) Tbk shows that the line in the figure rises because assets increase and profits also increase. From PT. Indofarma (Persero) Tbk rose, while PT. Kalbe Farma (Persero) Tbk and PT. Kimia Farma (Persero) Tbk's profit has decreased. If a company's ROA is high, it can show that the company generates large profits with the assets it owns; this is considered a good situation because the company can use its assets efficiently to generate income in Figure 4.4, Return on Equity (ROE) in 2017 PT. Kimia Farma (Persero) Tbk experienced an increase due to PT. Kimia Farma (Persero) Tbk can generate significant profits from invested shareholder capital, while PT. Indofarma (Persero) Tbk and PT. Kalbe Farma (Persero) Tbk experienced a decline due to PT. Indofarma (Persero) Tbk and PT. Kalbe Farma (Persero) Tbk cannot generate sufficient profits from invested shareholder capital. In 2019, at PT. Indofarma experienced an increase because of PT. Indofarma (Persero) Tbk can generate significant earnings from invested shareholder capital, whereas PT. Kalbe Farma (Persero) Tbk and PT. Kimia Farma (Persero) Tbk experienced a decline due to PT. Kalbe Farma (Persero) Tbk and PT. Kimia Farma (Persero) Tbk cannot generate sufficient profits from invested shareholder capital. In 2022 at PT. Indofarma (Persero) Tbk and PT. Kimia Farma (Persero) Tbk experienced a decline due to PT. Indofarma (Persero) Tbk and PT. Kimia Farma (Persero) Tbk could not generate sufficient profits from invested shareholder capital, while PT. Kalbe Farma (Persero) Tbk increased because of PT. Kalbe Farma (Persero) Tbk can profit significantly from invested shareholder capital. This is a good situation because the company can give shareholders greater investment returns.

Net Insert Margin (NIM) in 2017 at PT. Indofarma (Persero) Tbk and PT. While at PT, Kalbe Farma (Persero) Tbk increased NIM due to increased net income. Kimia Farma (Persero) Tbk decreased because net income NIM decreased. In 2018, at PT. Kimia Farma (Persero) Tbk and PT. While at PT, Kalbe Farma (Persero) Tbk decreased due to the decrease in net income NIM. Indofarma (Persero) Tbk increased NIM due to increased net income. In 2019, at PT. Kimia Farma (Persero) Tbk and PT. While at PT, Indofarma (Persero) Tbk increased NIM due to increased net income. Kalbe Farma (Persero) Tbk decreased because net income NIM decreased.

Debt to Asset Ratio (DAR) at PT. Indofarma (Persero) Tbk in 2018 experienced a decrease in DAR due to its debt decreasing and its assets increasing, while PT. Kimia Farma (Persero) Tbk and PT. Kalbe Farma (Persero) Tbk experienced an increase due to its debt increase and its assets decrease in Figure 4.7, Debt to Equity Ratio (DER) at PT. Indofarma (Persero) Tbk experienced a decline; this shows that the company uses more capital than debt to finance its operations and assets, while PT. Kimia Farma (Persero) Tbk and PT. Kalbe Farma (Persero) Tbk experienced an increase; this indicates that the company uses more debt than capital to finance its operations and asset costs. If the DER experiences an increase, this is considered risky because the company has a high level of leverage, which can increase the risk of default if there is a decrease in cash flow or financial difficulties and vice versa.

Asset Turnover in 2021 at PT. Indofarma (Persero) Tbk and PT. Kimia Farma (Persero) Tbk experienced an increase; this shows that the company can use its assets efficiently to generate higher sales. This is a good situation because the company can maximize using assets to increase revenue, whereas at PT. Kalbe Farma (Persero) Tbk did not experience an increase or decrease (stagnant) because there was no significant change in the efficiency of using company assets to generate income.

Meanwhile, in 2022, PT Kimia Farma (Persero) Tbk experienced a decline; this shows that the company cannot utilize its assets efficiently to generate higher sales.

Receivable Turnover at PT. Kalbe Farma (Persero) Tbk experienced a decline because it showed that the company was slow to collect its company receivables; this was considered an unfavorable situation that caused the company to experience difficulty in converting credit sales into cash which could give rise to liquidity and cash flow problems, whereas at PT. Indofarma (Persero) Tbk and PT. Kimia Farma (Persero) Tbk experienced an increase because it showed that the company could collect its trade receivables appropriately. This was a good situation because the company could efficiently convert credit sales into cash and increase liquidity and cash flow. PT. Kalbe Farma (Persero) Tbk experienced a decline, indicating that the company can use its funding sources efficiently to generate high sales and experiencing a decline, and this shows that the company is less efficient in using its funding sources to create sales.

The Day Of Inventory (DOI) at PT Kalbe Farma (Persero) Tbk and PT. Indofarma (Persero) Tbk increased in 2019 because inventory was held in the warehouse longer before being sold or used. This could indicate that the company has excessive inventory or needs help selling its products. At PT Kimia Farma (Persero) Tbk, the DOI decreased because inventory rotated quickly and was not held in the warehouse for too long before being sold or used. This is good because it indicates efficient inventory management and reduces costs and risks.

Operational Costs to Net Sales at PT. Kimia Farma (Persero) Tbk and PT. Indofarma (Persero) Tbk increased because it spent most of its net sales covering operational costs. This was considered unfavorable because it was caused by low operational efficiency and could reduce the company's profits, whereas at PT. Kalbe Farma (Persero) Tbk did not experience an increase or decrease (stagnant), and PT Indofarma (Persero) Tbk experienced a rise because the company spent most of its net sales to cover operational costs; this is considered a bad situation because it is caused by poor operational efficiency. Low and can reduce company profits, whereas at PT. Kimia Farma (Persero) Tbk and PT. Kalbe Farma (Persero) Tbk experienced a decline because the company only used a small portion of its net sales to cover its operational costs. This was a good situation because high operational efficiency could increase profits.

The difference from previous research is Rifany Angelia Ratu's 2016 Comparative Analysis of Financial Performance at PT. Kimia Farma Tbk and PT. Kalbe Farma Tbk for the 2011-2014 period using the paired sample t analysis technique (two paired sample test) and in the research of Ratih FD Simbolon, Moch. Dzulkirom Muhammad 2014, with the title Eva Analysis (Economic Value Added) to Assess Company Financial Performance (Study of Pharmaceutical Companies on the Indonesian Stock Exchange for the 2010-2012 Period) using a quantitative approach using the judgment sampling method.

There were 57 manufacturing companies in the consumer goods industry sector on the IDX in 2019-2020; 54 companies published complete annual reports during the study year (2019-2020) and presented financial reports in rupiah currency. Thus, 54 manufacturing companies in the consumer goods sector were sampled, with an observation period of 2 years, so the number of research samples was 108.

5. CONCLUSION

Based on the research, it can be concluded that of the three pharmaceutical industries studied at PT. Kalbe Farma (Persero) Tbk and PT. Kimia Farma (Persero) Tbk in 2016-2022, the liquidity ratio increased; this can be said to be good because debt decreased, whereas at PT. Indofarma (Persero) Tbk in 2016-2022 had a decreasing liquidity ratio; this could be said to be unfavorable because debt increased at PT. Kalbe Farma (Persero) Tbk, PT. Indofarma (Persero) Tbk, and PT. Kimia Farma (Persero) Tbk in 2016-2022 saw a decline in profitability ratios; this can be said to be not good because profits or profits also decreased. At PT. Kalbe Farma (Persero) Tbk, PT. Indofarma (Persero) Tbk, and PT. Kimia Farma (Persero) Tbk in 2016-2022 saw a decreased activity ratio. This is unfavorable because the company could be more efficient in using its funding sources to generate sales. Pad PT. Kalbe Farma (Persero) Tbk and PT. Kimia Farma (Persero) Tbk in 2016-2022, the efficiency ratio decreased; this can be said to be good because inventory rotates quickly and is not held

in the warehouse for too long before being sold or used, and high operational efficiency can potentially increase company profits, whereas at PT. Indofarma (Persero) Tbk experienced an increase, which could be considered unfavorable because inventory was held in the warehouse longer before being sold or used, and operational efficiency needed to be higher, which could reduce profits at PT. Kalbe Farma (Persero) Tbk and PT. Kimia Farma (Persero) Tbk, in 2016-2022, the profitability ratio decreased; this can be considered good because debt decreased, assets profits increased, and the company uses more capital than debt to finance its operations and assets at PT. Indofarma (Persero) Tbk has experienced an increase; this can be considered unfavorable because debt has increased and assets and profits have decreased and can indicate that the company uses little capital from debt to finance its operations and assets from the explanation of the financial performance of PT, Kalbe Farma (Persero) Tbk, and PT. Kimia Farma (Persero) Tbk during the 2016-2022 period has the same financial work as PT. Indofarma (Persero) Tbk, during the 2016-2022 period, had a different and less good financial performance than PT. Kalbe Farma (Persero) Tbk and PT. Kimia Farma (Persero) Tbk.

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