



THE CHANGES IN FINANCIAL PERFORMANCE SEGMENTATION USING FINANCIAL RATIOS PHARMACEUTICAL COMPANIES IN INDONESIA

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Kata Kunci

Kinerja keuangan, Akuisisi, analisis pengelompokan K-means.

Abstrak

Tujuan penelitian ini adalah menganalisis kondisi keuangan perusahaan farmasi di Indonesia yang terdaftar di BEI. Penelitian ini mengukur rasio-rasio yaitu net profit margin, debt to equity ratio, dan return on equity berdasarkan laporan keuangan periode Juni 2022 dan Juni 2023. Pengolahan data pada penelitian ini menggunakan software IBM SPSS dengan analisis K-means clustering. Hasil klasterisasi diperoleh 5 klaster dengan 5 persona yaitu Sangat Baik (A), Baik (B), Cukup Baik (C), Buruk (D), dan Sangat Buruk. Pengelompokan persona berdasarkan rasio NPM, ROE, dan DER. Terjadi perubahan segmentasi kinerja keuangan pada tahun 2022 ke tahun 2023, dimana sebagian besar perusahaan farmasi di Indonesia mengalami penurunan kinerja pada tahun 2023. Dari hasil perbandingan diatas dapat disimpulkan bahwa PT Pyridam Farma Tbk menunjukkan perubahan segmentasi kinerja keuangan yang paling signifikan, dari kinerja buruk (D) pada tahun 2022 menjadi kinerja sangat baik (A) pada tahun 2023. Sedangkan kinerja keuangan PT Indofarma Tbk dari tahun 2022 dan 2023 tidak mengalami perubahan segmentasi, tetap pada posisi sangat buruk (E). Penulis menyimpulkan bahwa PT Pyridam Farma Tbk berpotensi menjadi perusahaan yang akan mengakuisisi PT Indofarma Tbk.

Keywords

Financial performance, Acquisition, K-means clustering analysis.

Abstract

The purpose of this study is to analyze the financial condition of pharmaceutical companies in Indonesia listed on the IDX. This study measures the ratios, namely net profit margin, debt to equity ratio, and return on equity based on financial reports as of June 2022 and June 2023. Data processing in this study used IBM SPSS software with K-means clustering analysis. From the clustering results, there were 5 clusters with 5 personas, namely Very Good (A), Good (B), Fair (C), Bad (D), and Very Bad. Persona grouping based on the ratio of NPM, ROE, and DER. There has been a change in financial performance segmentation from 2022 to 2023, where most of the pharmaceutical companies in Indonesia have experienced a decline in performance in 2023. From the results of the comparison above, it can be concluded that PT Pyridam Farma Tbk shows the most significant change in financial performance

segmentation, from poor performance (D) in 2022 to very good (A) performance in 2023. Meanwhile, the financial performance of PT Indofarma Tbk from 2022 and 2023 has not experienced a change in segmentation, remains in a very bad position (E). The authors conclude that PT Pyridam Farma Tbk has the potential to become a company that will acquire PT Indofarma Tbk.

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INTRODUCTION

Indonesia is the largest pharmaceutical market share in the ASEAN region reaching 27% of the total ASEAN market share, where 73% of the national pharmaceutical market share is dominated by local pharmaceutical companies. This condition is something to be very proud of where it is the only one in the ASEAN region where local companies dominate market share. The increasing number of pharmaceutical companies creates a more intense competitive climate. Currently, there are more than 200 pharmaceutical companies in Indonesia. This makes pharmaceutical companies compete with each other to maintain their position. Likewise, what was done by PT Kalbe Farma Tbk and PT Dankos Laboratories Tbk. To reduce competition while creating efficiency, the two companies eventually merged.

In order to maintain the survival of a large company so that it continues to run, it can be done by means of expansion. Expansion for the company itself there are 2 kinds, namely through growth from within the company (internal growth) and growth from outside the company (external growth). Internal expansion is a company that expands by building a new business and starting from the initial stages such as market research, product design, seeking experts, market testing, procurement, building company facilities to selling its products to the market or in other words the company continues to grow normally. through capital budgeting activities. In contrast to external expansion which can be done by business combination. External expansion tends to "buy" existing companies or purchased by larger predecessor companies. Mergers of businesses or in other words mergers and acquisitions are believed to be able to easily access new markets or new products without having to build a new business from scratch.

Merger means the merging of two or more companies where only one company survives as a legal entity, while the others stop their activities or disband. Meanwhile, the notion of acquisition is the takeover of ownership or control over the shares or assets of a company by another company, and in this event both the expropriated or expropriated companies still exist as separate legal entities (Moin, 2003). The approval process for mergers and acquisitions is carried out based on agreement or approval from both parties without any intervention from other parties. The negotiation step carried out by the management or directors of each party is the first step in the entire merger and acquisition process. Along with making the decision to carry out mergers and acquisitions, it is

expected to be able to create long-term added value. Therefore, whether or not there is synergy in a merger and acquisition, it takes a relatively long time and cannot be seen some time after the announcement of the merger and acquisition.

Quoting Republic of Indonesia Government Regulation No. 27 of 1998 in the book *Mergers, Acquisitions & Divestments (2003)* concerning Mergers, Consolidations and Acquisitions of Limited Liability Companies, states that a merger is a legal act performed by one or more companies to merge with another existing company and then the companies that merge themselves become dissolved. Acquisition is a legal action carried out by a legal entity or individual to take over either all or most of the company's shares which can result in a transfer of control over the company.

Statement of Financial Accounting Standards (PSAK) No. 22 states that an acquisition is a form of taking over a company's ownership by the acquirer (acquirer), so that it will result in a transfer of control over the company being taken over (acquire). Corporate control in question is the power to regulate financial and operating policies, appoint and dismiss management and obtain majority voting rights in editorial meetings. The acquisition phenomenon is 120 JRAT Vol. 10, No. 1, April 2017 big changes that happened to the company. The decision to make an acquisition is based on various factors, one of which is the pursuit of competitive advantage (Gupta, 2012). For example, the acquisition made by Trans corp of Carrefour or the acquisition of Bank Agro by BRI,

Acquisition is a comprehensive change in the company's composition. Merging one company with another company is able to create a new, bigger economic power or failure occurs because of this. Financial ratio analysis has been widely used by companies to make short, medium and long term decisions, one of which is the company before making an important acquisition. This is to create future opportunities or also mitigate risks that will occur. Economic theory has provided several possible reasons why acquisitions occur, including efforts to create market power, good corporate governance, diversification opportunities, efficiency related reasons which often involve the economy or other types of synergies.

One of the most important aspects in acquisitions is accounting either according to IFRS or US GAAP or local accounting depending on the acquirer and the target (Resceanu, 2012). Acquisition failure is still high at around 50%. Factors that cause failure include the human factor where employees find it difficult to adapt to a new work culture, politics, lack of effective communication, in addition to the lack of business strategies made by companies after mergers and acquisitions have been agreed (Koi-Akrofi, 2016). The research conducted by Patal and Shah (2016) shows that proper analysis prior to a merger can improve bank performance.

This study aims to analyze changes in segmentation of the financial performance of pharmaceutical companies in Indonesia that have been listed on the Indonesia Stock Exchange using financial data as of March 2022 and as of March 2023.

What are the changes in the segmentation of the financial performance of pharmaceutical companies in Indonesia that have been listed on the Indonesia Stock Exchange using financial data as of March 2022 and as of March 2023?

A business combination is an attempt to combine a company with one or more other companies into one economic unit (Halim, 2015: 103). Business combination when viewed from a legal perspective is divided into 3 (Halim, 2015: 103):

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1. Merger is a type of company merger in which only one company survives, while the other company is liquidated. The assets and liabilities of the liquidated company are transferred to the surviving company.
2. Consolidation is a merger of companies where the two merging companies are dissolved. The assets and liabilities of the two companies were transferred to the newly formed company and one of the companies that joined were still standing since the consolidation
3. Acquisition is a merger of companies in which one company acquires voting shares (common shares) from another company and the two companies continue to operate as separate entities, but have a special relationship.

Companies in making acquisitions are based on various motives, including economic motives, synergy motives, diversification motives, and non-economic motives (Firdaus and Yuniati, 2016). In practice there are advantages and disadvantages, as Moin 2010:13, the advantages of acquisitions are as follows:

1. Get cashflow quickly because the product and market are clear
2. Obtaining easy funding or financing because creditors have more confidence in companies that have been established and are well established
3. Obtain experienced employees
4. Get established customers without having to start from scratch
5. Obtain an established operational and administrative system
6. Reducing the risk of business failure because you don't have to find new customers
7. Save time to enter new business
8. Acquire the infrastructure to achieve faster growth.

In addition to the advantages that occur in acquisitions, acquisitions are also inseparable from weaknesses, including:

1. The integration process is not easy
2. The difficulty of accurately determining the value of the target company
3. Expensive consulting fees
4. Increasing bureaucratic complexity
5. Expensive coordination costs
6. Often lowers organizational morale
7. Does not guarantee an increase in corporate value
8. Does not guarantee an increase in shareholder wealth

Analysis of the company's financial statements can be reviewed through various ratios, namely the ratio of profitability, solvency, liquidity, market appraisal and business activity ratios (Wiagustini, 2014: 85). Financial ratio analysis is a way to compare and investigate relationships between different parts of financial information. According to Ross et al (2011:48) the ratio consists of: - Short term solvency or liquidity ratios. This ratio shows the company's ability to meet short-term obligations. The liquidity ratio is calculated using the formula of current assets divided by current liabilities. - Long term solvency or financial leverage ratios. This ratio is to show the company's ability to meet long-term obligations. This ratio is to determine the balance between the company's assets and equity with the company's long-term liabilities. - Asset management, or turnover ratios. This ratio shows the company's ability to manage assets to generate income from sales. - Profitability ratios that show the company's ability to manage assets efficiently to

generate profits. - Market value ratios. This ratio shows the market value per share of the company.

Acquisition or merger will involve two companies (Tjia, 2014:5). One company can buy another company, or a newly formed company can buy another company. The occurrence of corporate acquisitions is based on several theories as expressed by Sharma & Ho (2002) in Utami (2013): synergy theory or efficiency theory, market for corporate control theory, and cash flow theory. These three theories implicitly reveal that company acquisitions should generate profits in operating performance.

Synergy theory explains that value can be created in acquisition activities through increased efficiency, both operationally and financially. An increase in value that is higher than the value if the company is added individually is called *senergi*. Synergy can be created through economies of scale and market power.

The market for corporate control theory is a theory which explains that one of several management teams will compete for the right to regulate or control the company. This competition between management teams can lead to the emergence of team efficiency that can manage the company, therefore, the new management must be able to prove its ability in general by working more effectively than the old management.

The cash flow theory explains that if a company has very large free cash flow, it is feared that managers will have a tendency to invest these funds in projects that have a negative net present value, this is contrary to the policy of maximizing shareholder wealth. Based on these reasons, when a company decides to make an acquisition, it should be done in cash (cash) or debt rather than equity (share issuance).

Acquisitions made by companies cannot be separated from the existence of free cash flow within the company. Management must make the right decision with the existence of the cash flow. Company owners are not very happy with idle cash due to the high risk. Management decisions must pay attention to the main goal of the company is to maximize the value of shareholders (company owners). Management must pay attention to its actions whether it can bring prosperity to shareholders or not.

Acquisition is an effort made by the company to develop its business in the long term. Companies involved in the acquisition of at least two companies, where one company will become the holding company and the other company will become a subsidiary. One company with another company synergizes to produce positive things after the acquisition. The synergy that is built can help the acquiring company to be more efficient, especially with regard to allocating resources and market power due to reduced competitors.

Allocation of resources and utilization of market power due to reduced competitors is required strategy. The management team of the company after the acquisition will be more competitive in developing this strategy. The management team is more challenged to demonstrate its capabilities, especially after the acquisition. This will show which management team can be in control after the acquisition. Acquisitions involve a minimum of two companies, of course, with different management, allowing differences in the financial performance of the acquirer before and after the acquisition.

The financial analysis used in this study is financial ratio analysis. This study uses financial ratios according to Ross: 48, namely:

1. Short term solvency or liquidity ratio is a ratio that shows the company's liquidity. The Liquidity Ratio is a comparison between current assets and current liabilities. The

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liquidity ratio shows how efficiently the company manages the company's current assets so that it is able to pay its short-term debts and on time when needed. Liquidity ratios include: Current Ratio and Quick Ratio. This ratio is measured using the formula:

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

$$\text{Quick Ratio} = \frac{\text{Current Assets} - \text{Inventory}}{\text{Current Liabilities}}$$

2. Long term solvency or financial leverage ratio is the ratio to determine the long term ability of a company to fulfill its obligations. This ratio is measured using the formula:

$$\text{Total debt ratio} = \frac{\text{total asset} - \text{total equity}}{\text{total asset}}$$

$$\text{Debt-equity ratio} = \frac{\text{total debt}}{\text{total equity}}$$

3. Profitability ratios are ratios to determine the company's ability to generate profits. This ratio is calculated using the formula:

$$\text{NPM} = \frac{\text{Laba bersih setelah pajak}}{\text{Penjualan bersih}}$$

$$\text{Return on Asset} = \frac{\text{net income}}{\text{total asset}}$$

$$\text{return on Equity} = \frac{\text{Net income}}{\text{Total Equity}}$$

Net profit margin is one of the profitability ratios required by a company to determine the percentage of net profit earned after deducting taxes. This ratio measurement aims to see how effectively the company operates. The greater the NPM, the more productive the company's performance will be, thereby increasing investor confidence to invest in the company.

ROA shows the ratio of net profit generated to the capital that has been invested in assets. This ratio will describe the overall activity in the company.

ROE is a probability ratio to measure a company's ability to generate profits from investments made by shareholders in that company.

RESEARCH METHOD

K-Means Algorithm Classification

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Kirana et al (2023) in their research explained that K-Means Clustering is a non-hierarchical data grouping method that groups a group of data into one or several specified clusters. Permana et al (2017) in a study by Kirana et al (2023) explained that data that has similar characteristics will be grouped into 1 cluster, and data that has different characteristics will be regrouped into 1 other cluster, so that data that has entered a cluster will have a different level of variation from other data in the same cluster.

Bock (2007) in Kirana et al (2023) describes the stages of the K-Means Clustering process as follows:

1. Choose the number of clusters k
2. Initialization of k cluster centers can be done in various ways. But the most often done is in a random way. The cluster center is assigned an initial value with a random number.
3. Allocate all data to the nearest cluster. The closeness of two data is determined based on the distance between the two data.
4. Recalculate cluster center with current cluster membership. Cluster center is the average of all data/objects in a particular cluster.
5. Reassign each object using the new cluster center. If the cluster center does not change anymore then the clustering process is complete.

RESEARCH DATA

The data used in this study is financial ratio data for 11 pharmaceutical companies listed on the IDX through idx.co.id for the financial reporting period as of March 2022 and as of March 2023. The ratios used in this study are Net Profit Margin (NPM), Debt Equity Ratio (DER), and Return of Equity (ROE).

DATA PROCESSING TECHNIQUES

Data processing in this study uses IBM SPSS software. The following are market segmentation data processing techniques using the K-Means Clustering method:

1. Data Collection: The data collected is in the form of financial ratio data for 11 pharmaceutical companies listed on the IDX
2. K-Means Clustering Analysis: This study conducted K-Means Clustering analysis on 11 data samples consisting of 3 variables in each data sample. The number of clusters determined in the results of this K-Means analysis is 5 clusters.
3. Evaluation of Results: Evaluation of clustering results is carried out to understand the financial condition of the sample companies. This analysis was carried out by reading the K-Means Cluster results, as well as data visualization with scatter plots.
4. Interpretation and Comparison: Perform interpretation of clusters generated by grouping sample companies. The results are used to identify which companies are eligible for acquisition.

RESULT AND DISCUSSIONS

Before carrying out K-Means Clustering, the authors grouped companies engaged in the health sector specifically for pharmaceutical companies listed on the IDX for the Financial Report period as of March 2022 and as of March 2023.

Financial position as of March 2022

| No. | Sector | Sub Industry Code | Sub Industry | Code | Stock Name | Sharia | FS Date | Fiscal Year End | Type of FS | D/E Ratio, x | ROE, % | NPM, % |
|-----|------------|-------------------|-----------------|------|---|--------|------------|-----------------|------------|--------------|--------|--------|
| 1 | Healthcare | F211 | Pharmaceuticals | DVLA | Darya-Varia Laboratoria Tbk | S | 31/03/2022 | Dec | U | 0.44 | 0.13 | 0.31 |
| 2 | Healthcare | F211 | Pharmaceuticals | INAF | Indofarma Tbk | S | 31/03/2022 | Dec | U | 3.21 | -0.20 | -0.27 |
| 3 | Healthcare | F211 | Pharmaceuticals | KAEF | Kimia Farma Tbk | S | 31/03/2022 | Dec | U | 1.47 | 0.04 | 0.13 |
| 4 | Healthcare | F211 | Pharmaceuticals | KLBF | Kalbe Farma Tbk | S | 31/03/2022 | Dec | U | 0.22 | 0.15 | 0.47 |
| 5 | Healthcare | F211 | Pharmaceuticals | MERK | Merck Tbk | S | 31/03/2022 | Dec | U | 0.42 | 0.19 | 0.47 |
| 6 | Healthcare | F211 | Pharmaceuticals | PEHA | Phapros Tbk | S | 31/03/2022 | Dec | U | 1.65 | 0.01 | 0.04 |
| 7 | Healthcare | F211 | Pharmaceuticals | PYFA | Pyridam Farma Tbk | S | 31/03/2022 | Dec | U | 6.33 | -0.02 | -0.02 |
| 8 | Healthcare | F211 | Pharmaceuticals | SCPI | Organon Pharma Indonesia Tbk | S | 31/03/2022 | Dec | U | 0.40 | 0.14 | 0.34 |
| 9 | Healthcare | F211 | Pharmaceuticals | SIDO | Industri Jamu dan Farmasi Sido Muncul Tbk | S | 31/03/2022 | Dec | U | 0.39 | 0.42 | 1.46 |
| 10 | Healthcare | F211 | Pharmaceuticals | SOHO | Soho Global Health Tbk | S | 31/03/2022 | Dec | U | 0.92 | 0.24 | 0.31 |
| 11 | Healthcare | F211 | Pharmaceuticals | TSPC | Tempo Scan Pacific Tbk | S | 31/03/2022 | Dec | U | 0.45 | 0.11 | 0.27 |

Financial position as of March 2023

| No. | Sector | Sub Industry Code | Sub Industry | Code | Stock Name | Sharia | FS Date | Fiscal Year End | Type of FS | D/E Ratio, x | ROE, % | NPM, % |
|-----|------------|-------------------|-----------------|------|---|--------|------------|-----------------|------------|--------------|--------|--------|
| 1 | Healthcare | F211 | Pharmaceuticals | DVLA | Darya-Varia Laboratoria Tbk | S | 31/03/2023 | Dec | U | 0.41 | 0.05 | 0.14 |
| 2 | Healthcare | F211 | Pharmaceuticals | INAF | Indofarma Tbk | S | 31/03/2023 | Dec | U | 63.20 | -17.88 | -2.59 |
| 3 | Healthcare | F211 | Pharmaceuticals | KAEF | Kimia Farma Tbk | S | 31/03/2023 | Dec | U | 1.10 | -0.02 | -0.08 |
| 4 | Healthcare | F211 | Pharmaceuticals | KLBF | Kalbe Farma Tbk | S | 31/03/2023 | Dec | U | 0.23 | 0.15 | 0.43 |
| 5 | Healthcare | F211 | Pharmaceuticals | MERK | Merck Tbk | S | 31/03/2023 | Dec | U | 0.29 | 0.20 | 0.63 |
| 6 | Healthcare | F211 | Pharmaceuticals | PEHA | Phapros Tbk | S | 31/03/2023 | Dec | U | 1.30 | 0.03 | 0.10 |
| 7 | Healthcare | F211 | Pharmaceuticals | PYFA | Pyridam Farma Tbk | S | 31/03/2023 | Dec | U | 2.46 | 0.61 | 1.58 |
| 8 | Healthcare | F211 | Pharmaceuticals | SCPI | Organon Pharma Indonesia Tbk | S | 31/03/2023 | Dec | U | 0.34 | 0.18 | 0.33 |
| 9 | Healthcare | F211 | Pharmaceuticals | SIDO | Industri Jamu dan Farmasi Sido Muncul Tbk | S | 31/03/2023 | Dec | U | 0.35 | 0.36 | 1.22 |
| 10 | Healthcare | F211 | Pharmaceuticals | SOHO | Soho Global Health Tbk | S | 31/03/2023 | Dec | U | 0.85 | 0.11 | 0.13 |
| 11 | Healthcare | F211 | Pharmaceuticals | TSPC | Tempo Scan Pacific Tbk | S | 31/03/2023 | Dec | U | 0.42 | 0.16 | 0.40 |

K-Means Clustering Analysis

The results of the K-Means Clustering analysis show the distribution of clusters as follows:

Financial position as of March 2022:

Final Cluster Centers

| | Cluster | | | | |
|--------------|------------|------------|-----------|-----------|-----------|
| | 1 | 2 | 3 | 4 | 5 |
| NPM, % | -.02 | -.27 | .09 | 1.46 | .36 |
| D/E Ratio, x | 6.33 | 3.21 | 1.56 | .39 | .48 |
| ROE, % | -.02000000 | -.20000000 | .02500000 | .42000000 | .16000000 |

Distances between Final Cluster Centers

| Cluster | 1 | 2 | 3 | 4 | 5 |
|---------|-------|-------|-------|-------|-------|
| 1 | | 3.135 | 4.771 | 6.137 | 5.870 |
| 2 | 3.135 | | 1.703 | 3.366 | 2.830 |
| 3 | 4.771 | 1.703 | | 1.848 | 1.128 |
| 4 | 6.137 | 3.366 | 1.848 | | 1.132 |
| 5 | 5.870 | 2.830 | 1.128 | 1.132 | |

Number of Cases in each Cluster

| | | |
|---------|---|--------|
| Cluster | 1 | 1.000 |
| | 2 | 1.000 |
| | 3 | 2.000 |
| | 4 | 1.000 |
| | 5 | 6.000 |
| Valid | | 11.000 |
| Missing | | .000 |

Cluster Membership

| Case Number | Stock Name | Cluster | Distance |
|-------------|---|---------|----------|
| 1 | Darya-Varia Laboratoria Tbk | 5 | .069 |
| 2 | Indofarma Tbk | 2 | .000 |
| 3 | Kimia Farma Tbk | 3 | .102 |
| 4 | Kalbe Farma Tbk | 5 | .277 |
| 5 | Merck Tbk | 5 | .125 |
| 6 | Phapros Tbk | 3 | .102 |
| 7 | Pyridam Farma Tbk | 1 | .000 |
| 8 | Organon Pharma Indonesia Tbk | 5 | .081 |
| 9 | Industri Jamu dan Farmasi Sido Muncul Tbk | 4 | .000 |
| 10 | Soho Global Health Tbk | 5 | .455 |
| 11 | Tempo Scan Pacific Tbk | 5 | .107 |

Financial position as of March 2023:

Final Cluster Centers

| | Cluster | | | | |
|--------------|-----------|------------|-----------|-----------|-----------|
| | 1 | 2 | 3 | 4 | 5 |
| NPM, % | .38600000 | -2.5900000 | .05000000 | 1.5800000 | 1.2200000 |
| D/E Ratio, x | .33800000 | 63.200000 | 1.0833333 | 2.4600000 | .35000000 |
| ROE, % | .15 | -17.88 | .04 | .61 | .36 |

Distances between Final Cluster Centers

| Cluster | 1 | 2 | 3 | 4 | 5 |
|---------|--------|--------|--------|--------|--------|
| 1 | | 65.464 | .825 | 2.478 | .861 |
| 2 | 65.464 | | 64.704 | 63.629 | 65.554 |
| 3 | .825 | 64.704 | | 2.136 | 1.417 |
| 4 | 2.478 | 63.629 | 2.136 | | 2.155 |
| 5 | .861 | 65.554 | 1.417 | 2.155 | |

Number of Cases in each Cluster

| | | |
|---------|---|--------|
| Cluster | 1 | 5.000 |
| | 2 | 1.000 |
| | 3 | 3.000 |
| | 4 | 1.000 |
| | 5 | 1.000 |
| Valid | | 11.000 |
| Missing | | .000 |

Cluster Membership

| Case Number | Stock Name | Cluster | Distance |
|-------------|---|---------|----------|
| 1 | Darya-Varia Laboratoria Tbk | 1 | .274 |
| 2 | Indofarma Tbk | 2 | .000 |
| 3 | Kimia Farma Tbk | 3 | .144 |
| 4 | Kalbe Farma Tbk | 1 | .117 |
| 5 | Merck Tbk | 1 | .254 |
| 6 | Phapros Tbk | 3 | .223 |
| 7 | Pyridam Farma Tbk | 4 | .000 |
| 8 | Organon Pharma Indonesia Tbk | 1 | .065 |
| 9 | Industri Jamu dan Farmasi Sido Muncul Tbk | 5 | .000 |
| 10 | Soho Global Health Tbk | 3 | .256 |
| 11 | Tempo Scan Pacific Tbk | 1 | .084 |

Persona and Changes in Segmentation for 2022-2023

Final Cluster Centers 2022

| | Cluster | | | | |
|----------------------|-----------|-----------|-----------|-----------|-----------|
| | Cluster 1 | Cluster 2 | Cluster 3 | Cluster 4 | Cluster 5 |
| NPM, % | -0.02 | -0.27 | 0.09 | 1.46 | 0.36 |
| D/E Ratio, x | 6.33 | 3.21 | 1.56 | 0.39 | 0.48 |
| ROE, % | -0.02 | -0.20 | 0.03 | 0.42 | 0.16 |
| Identifikasi Persona | D | E | C | A | B |

Final Cluster Centers 2023

| | Cluster | | | | |
|----------------------|-----------|-----------|-----------|-----------|-----------|
| | Cluster 1 | Cluster 2 | Cluster 3 | Cluster 4 | Cluster 5 |
| NPM, % | 0.39 | -2.59 | 0.05 | 1.58 | 1.22 |
| D/E Ratio, x | 0.34 | 63.20 | 1.08 | 2.46 | 0.35 |
| ROE, % | 0.15 | -17.88 | 0.04 | 0.61 | 0.36 |
| Identifikasi Persona | C | E | D | A | B |

| Persona | Category |
|---------|-----------|
| A | Very Good |
| B | Good |
| C | Fair |
| D | Bad |
| E | Very Bad |

| Cluster Membership | | | | | Result |
|--------------------------------|-----------------|--------------|-----------------|--------------|----------|
| Stock Name | No.Cluster 2022 | Persona 2022 | No.Cluster 2023 | Persona 2023 | |
| Darya-Varia Laboratoria Tbk | 5 | B | 1 | C | |
| Indofarma Tbk | 2 | E | 2 | E | Acquired |
| Kimia Farma Tbk | 3 | C | 3 | D | |
| Kalbe Farma Tbk | 5 | B | 1 | C | |
| Merck Tbk | 5 | B | 1 | C | |
| Phapros Tbk | 3 | C | 3 | D | |
| Pyridam Farma Tbk | 1 | D | 4 | A | Acquiry |
| Organon Pharma Indonesia Tb | 5 | B | 1 | C | |
| Industri Jamu dan Farmasi Sidd | 4 | A | 5 | B | |
| Soho Global Health Tbk | 5 | B | 3 | D | |
| Tempo Scan Pacific Tbk | 5 | B | 1 | C | |

From the clustering results, there were 5 clusters with 5 personas, namely Very Good (A), Good (B), Fair (C), Bad (D), and Very Bad. Persona grouping based on the ratio of NPM, ROE, and DER. There has been a change in financial performance segmentation from 2022 to 2023, where most of the pharmaceutical companies in Indonesia have experienced a decline in performance in 2023.

From the results of the comparison above, it can be concluded that PT Pyridam Farma Tbk shows the most significant change in financial performance segmentation, from poor performance (D) in 2022 to very good performance (A) in 2023. Meanwhile, PT Indofarma Tbk's financial performance from 2022 and 2023 does not experience a change in segmentation, remains in a very bad position (E).

Based on the data above, the authors conclude that PT Pyridam Farma Tbk has the potential to become a company that will acquire PT Indofarma Tbk. PT Indofarma Tbk is not only engaged in the pharmaceutical sector, but also operates in the medical device sector. By acquiring PT Indofarma, PT Pyridam Farma Tbk can expand its business in the medical device sector. The potential for business development in the medical device sector in Indonesia is enormous because currently the government has issued a regulation that medical devices must use domestic components (TKDN).

CONCLUSION

The author succeeded in analyzing changes in the segmentation of the financial performance of pharmaceutical companies in Indonesia that are listed on the Indonesia Stock Exchange using K-Means Clustering using SPSS V.26. From the clustering results, the authors can see changes in financial performance segmentation from 2022 to 2023, where most pharmaceutical companies in Indonesia will experience a decline in performance in 2023. There is 1 company that has experienced a significant increase in

performance, from poor performance (D) in 2022 to a very good performance (A) in 2023, namely PT Pyridam Farma Tbk. And there is 1 company that performs very poorly in 2022 and 2023, namely PT Indofarma Tbk.

Financial performance analysis is necessary both for assessing the company's internal performance and for assessing the financial performance of other companies in the context of planned mergers/acquisitions.

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