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## Financial Performance Segmentation Changes of Indonesian Insurance Companies Listed on Indonesia Stock Exchange (IDX)

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### Abstrak

Akuisisi merupakan salah satu teknik untuk menciptakan dan menjaga kelangsungan hidup perusahaan, terutama jika terjadi keadaan tidak terduga yang merugikan suatu perusahaan, seperti pada industri asuransi pada masa pandemi Covid-19. Penelitian ini mengkaji perubahan segmentasi kinerja keuangan perusahaan asuransi Indonesia yang terdaftar di Bursa Efek Indonesia (BEI) dalam konteks dampak pandemi Covid-19 terhadap industri. Dengan menggunakan desain penelitian kuantitatif, penelitian ini menggunakan K-Means Clustering untuk menganalisis indikator kinerja keuangan utama, termasuk Debt-to-Equity Ratio (DER), Return on Equity (ROE), Net Profit Margin (NPM), dan Risk-Based Capital (RBC) untuk periode Desember 2021 dan Desember 2022. Temuan ini mengungkapkan perubahan signifikan dalam profil kesehatan keuangan dan risiko perusahaan-perusahaan ini, menyoroti pentingnya metrik keuangan yang kuat dalam strategi akuisisi. Studi ini menyelidiki lebih lanjut rasio keuangan bulan Desember 2023 untuk menilai hasil akuisisi baru-baru ini, seperti yang dilakukan Hanwha Life terhadap PT Lippo General Insurance Tbk, dan apakah akuisisi tersebut menghasilkan manfaat sinergis. Wawasan yang diperoleh dari penelitian ini memberikan implikasi berharga bagi para pemangku kepentingan, termasuk calon pengakuisisi dan regulator, dengan meningkatkan pemahaman mereka tentang dinamika pasar dan memberikan informasi dalam pengambilan keputusan strategis dalam lanskap asuransi yang terus berkembang di Indonesia.

Kata Kunci: *Lean Construction, Efisiensi Sumber Daya, Proyek Konstruksi, Manajemen Proyek, Pengurangan Pemborosan, Optimasi Material*

## Abstract

The acquisition is one of the techniques for creating and preserving the firm's survival, especially if unforeseen circumstances occur that are averse to a company, such as in the insurance industry during the Covid-19 pandemic. This study examines the financial performance segmentation changes of Indonesian insurance companies listed on the Indonesia Stock Exchange (IDX) in the context of the Covid-19 pandemic's impact on the industry. Utilizing a quantitative research design, the research employs K-Means Clustering to analyse key financial performance indicators, including Debt-to-Equity Ratio (DER), Return on Equity (ROE), Net Profit Margin (NPM), and Risk-Based Capital (RBC) for the periods of December 2021 and December 2022. The findings reveal significant shifts in the financial health and risk profiles of these companies, highlighting the importance of robust financial metrics in acquisition strategies. The study further investigates the financial ratios for December 2023 to assess the outcomes of recent acquisitions, such as that of PT Lippo General Insurance Tbk by Hanwha Life, and whether these acquisitions have resulted in synergistic benefits. The insights gained from this research provide valuable implications for stakeholders, including potential acquirers and regulators, by enhancing their understanding of market dynamics and informing strategic decision-making in the evolving insurance landscape of Indonesia.

*Keywords: Lean Construction, Resource Efficiency, Construction Projects, Project Management, Waste Reduction, Material Optimization*

## INTRODUCTION

The Covid-19 pandemic has significantly reshaped the global economic landscape, presenting unprecedented challenges and opportunities for industries worldwide, including the Indonesian insurance sector. The Covid-19 pandemic outbreak that hit Indonesia and the implementation of the PSBB in 2020 and the easing of policies in 2021 inevitably caused the financial performance of companies in Indonesia to be shaken and some were even threatened with bankruptcy. Based on data from the Central Statistics Agency (BPS) on September 15, 2020, there were 82.85% of companies affected by the Covid-19 pandemic (Saputro & Hapsari, 2022). As insurers navigate through economic uncertainties and shifting consumer behaviours, evaluating their financial performance has become crucial for stakeholders seeking to understand market dynamics and make informed decisions.

The company's financial performance is outlined in the form of a company financial report which contains information about aspects of raising funds and distributing funds, which are usually measured by indicators of capital adequacy, liquidity and profitability. (Mandavani et al., 2022). The level of growth, development and prospects of a company is information that is really needed by company owners and parties with an interest in the

company. To analyse a company's financial performance, it can be done using various techniques, one of which is financial ratio analysis, which is a financial analysis technique to determine the relationship between certain items in the balance sheet and income statement, both individually and simultaneously. Ratio analysis is a way to find out whether a financial condition is in good or bad condition. Financial ratio analysis is used to determine the health of a company's financial performance (Nurati et al., 2019).

The process of assessing company performance, one of which can be seen from the company's financial ratios. A company's financial ratios can be used as a tool to measure a company's financial status and company performance over a certain period (Alfi et al., 2022). There are four types of financial ratios, namely liquidity ratios, leverage ratios, activity ratios and profitability ratios (Kasmir, 2015). This research employs K-Means clustering analysis on four key financial ratios—Debt-to-Equity Ratio (DER), Return on Equity (ROE), Net Profit Margin (NPM), and Risk-Based Capital (RBC)—for Indonesian insurance companies listed on the Indonesia Stock Exchange (IDX) during the pivotal years of 2021 and 2022. The rationale for focusing on these financial ratios lies in their significance as critical indicators of financial health, operational efficiency, and risk management within the insurance industry. By analysing data from consecutive years, this research aims to identify changes in financial performance segmentation across insurance companies. Such segmentation not only provides insights into how these firms adapt to market dynamics but also informs strategic decision-making processes, particularly in the context of potential acquisitions.

Utilizing SPSS software allows for robust statistical analysis and visualization of complex financial data, enabling the identification of distinct clusters among insurance companies based on their financial performance metrics and enabling the identification of homogeneous clusters based on the selected ratios. These clusters reveal patterns of financial performance and risk profiles among Indonesian insurers, offering a nuanced understanding of their competitive positioning and strategic capabilities. By examining data from year 2021 and 2022, this research aims to uncover changes in financial performance segmentation of insurance companies and offering insights of insurance companies status type which are very good or very poor.

The findings of this research are expected to provide valuable implications for decision-makers, particularly in the context of acquisition strategies within the insurance sector. Identifying homogeneous clusters of companies with similar financial characteristics can assist potential acquirers in assessing synergies, evaluating risks, and strategically positioning their investments amidst evolving market conditions. Furthermore, regulators

and industry analysts can leverage these insights to enhance oversight and monitor the resilience of insurers in the face of ongoing economic uncertainties. By understanding the dynamics of financial performance segmentation, stakeholders can foster a more resilient and competitive insurance market landscape in Indonesia.

This research contributes to the existing literature by empirically analysing the financial performance segmentation changes of Indonesian insurance companies during the aftermath of the Covid-19 pandemic. The insights gleaned from this analysis not only advance academic understanding but also offer practical implications for strategic decision-making, particularly in the realm of acquisition and investment within the Indonesian insurance industry.

Researchers are also continuing this research to the next level by looking for information on insurance companies that will be acquired in 2023. This research also provides evidence from previous research by Purba, A. T. A., Zarkasih. A. R., & Heikal, J. (2023), are the results of this research in line with insurance company acquisitions that will occur in 2023. Then the researcher also continued this research to compare financial ratio data for December 2023 with December 2022, where this data comparison was carried out to find out whether the acquisition that occurred resulted in a synergistic acquisition or not.

## RESEARCH METHOD

For revealing the findings or objectives of the research, a systematic and planned set of procedures must be followed. According to Sunyoto (2016), the research methodology involves ascertaining the sequential presentation order of the data analysis procedure. The authors of this work employed unsupervised learning research, in which there is no target, and every variable is independent.

This research employs a quantitative research design to classify insurance companies listed on the Indonesia Stock Exchange (IDX) into distinct clusters based on their financial performance. The objective of this research is to classify insurance companies listed on the Indonesia Stock Exchange (IDX) for period December 2021 and December 2022 based on their financial performance indicators using K-Means Clustering. The K-Means Clustering algorithm will be used to analyze the data and segment the companies into five clusters. Figure 1 below shows that the companies observed were companies in the insurance sector that were listed on the Indonesia Stock Exchange, totaling 17 companies that met the requirements and criteria.

No.	Sector	Code	Stock Name
1	Financials	ABDA	Asuransi Bina Dana Arta Tbk
2	Financials	AHAP	Asuransi Harta Aman Pratama Tbk
3	Financials	AMAG	Asuransi Multi Artha Guna Tbk
4	Financials	ASBI	Asuransi Bintang Tbk
5	Financials	ASDM	Asuransi Dayin Mitra Tbk
6	Financials	ASJT	Asuransi Jasa Tania Tbk
7	Financials	ASMI	Asuransi Maximus Graha Persada Tbk
8	Financials	ASRM	Asuransi Ramayana Tbk
9	Financials	BHAT	Bhakti Multi Artha Tbk
10	Financials	JMAS	Asuransi Jiwa Syariah Jasa Mitra Abadi Tbk
11	Financials	LIFE	Asuransi Jiwa Sinarmas MSIG Tbk
12	Financials	LPGI	Lippo General Insurance Tbk
13	Financials	MTWI	Malacca Trust Wuwungan Insurance Tbk
14	Financials	PNIN	Paninvest Tbk
15	Financials	PNLF	Panin Financial Tbk
16	Financials	TUGU	Asuransi Tugu Pratama Indonesia Tbk
17	Financials	VINS	Victoria Insurance Tbk

Figure 1. List of Insurance Companies

Financial data for the variables DER, ROE, NPM, and RBC were obtained from the official IDX website ([www.idx.co.id](http://www.idx.co.id)) and the annual reports of the respective companies. The variables used in this research are Debt to Equity Ratio (DER), Return on Equity (ROE), Net Profit Margin (NPM), and Risk-Based Capital (RBC). Debt to Equity ratio (DER), where a lower DER indicates higher equity obtained and positively impacts the company's financial position. As for Return on Equity (ROE), a higher value is better for the company. Net Profit Margin (NPM) represents the net profit after taxes, and a higher value compared to the target is better for the financial health of the company. According to POJK 71 of 2016, the Financial Services Authority (OJK) targets that all insurance companies should have a Risk Based Capital (RBC) value above 120%. RBC is calculated based on total assets divided by total liabilities, each of which is presented in data from the Indonesian Stock Exchange (BEI). By analyzing financial performance indicators (DER, ROE, NPM, and RBC) for December 2021 and December 2022, the research aims to segment the companies into five distinct clusters, providing insights into their financial health and risk profiles.

The final clustering results are examined using DER, ROE, NPM, and RBC after the data have been processed using SPSS. These findings are then ranked from A (very good) to E (very poor). A list of the company names contained in each cluster is then generated and separated between the findings from December 2021 and December 2022 based on these rankings. The research investigates whether the financial ratio rankings of insurance firms

have changed between 2021 and 2022. These changes may be considered when choosing which insurance business to acquire.

## RESULT AND DISCUSSION

Indonesian insurance companies' financial ratios for December 2021 and December 2022

The financial ratio data are taken from all insurance companies listed in Indonesia Stock Exchange with period as of December 2021 and December 2022. These financial data and ratios for December 2021 and December 2022 are based on information from the official Indonesia Stock Exchange website ([www.idx.co.id](http://www.idx.co.id)), as shown below:

Case Number	Sector	Code	Stock Name	DER	ROE	NPM	RBC
1	Financials	ABDA	Asuransi Bina Dana Arta Tbk	0.72	0.12	0.32	2.38
2	Financials	AHAP	Asuransi Harta Aman Pratama Tbk	3.34	-0.14	-0.04	1.30
3	Financials	AMAG	Asuransi Multi Artha Guna Tbk	1.67	0.07	0.07	1.60
4	Financials	ASBI	Asuransi Bintang Tbk	1.82	0.06	0.05	1.55
5	Financials	ASDM	Asuransi Dayin Mitra Tbk	1.87	0.08	0.03	1.53
6	Financials	ASJT	Asuransi Jasa Tania Tbk	0.73	-0.02	-0.04	2.37
7	Financials	ASMI	Asuransi Maximus Graha Persada Tbk	1.12	0.00	0.00	1.90
8	Financials	ASRM	Asuransi Ramayana Tbk	2.11	0.13	0.05	1.47
9	Financials	BHAT	Bhakti Multi Artha Tbk	0.33	0.03	0.20	4.07
10	Financials	JMAS	Asuransi Jiwa Syariah Jasa Mitra Abadi Tbk	1.26	-0.02	-0.13	1.86
11	Financials	LIFE	Asuransi Jiwa Sinarmas MSIG Tbk	1.10	0.03	0.07	1.92
12	Financials	LPGI	Lippo General Insurance Tbk	1.98	0.13	0.08	1.51
13	Financials	MTWI	Malacca Trust Wuwungan Insurance Tbk	2.87	-0.07	-0.04	1.35
14	Financials	PNIN	Paninvest Tbk	0.15	0.04	0.51	7.52
15	Financials	PNLF	Panin Financial Tbk	0.16	0.06	0.55	7.08
16	Financials	TUGU	Asuransi Tugu Pratama Indonesia Tbk	1.40	0.03	0.05	1.72
17	Financials	VINS	Victoria Insurance Tbk	0.71	0.03	0.05	2.41

Figure 2. Financial Data dan Ratio Desember 2021

Case Number	Sector	Code	Stock Name	DER	ROE	NPM	RBC
1	Financials	ABDA	Asuransi Bina Dana Arta Tbk	0.62	0.08	0.21	2.62
2	Financials	AHAP	Asuransi Harta Aman Pratama Tbk	2.53	-0.12	-0.04	1.40
3	Financials	AMAG	Asuransi Multi Artha Guna Tbk	1.98	0.11	0.08	1.50
4	Financials	ASBI	Asuransi Bintang Tbk	1.66	0.07	0.06	1.60
5	Financials	ASDM	Asuransi Dayin Mitra Tbk	1.75	0.05	0.02	1.57
6	Financials	ASJT	Asuransi Jasa Tania Tbk	0.59	0.00	0.00	2.70
7	Financials	ASMI	Asuransi Maximus Graha Persada Tbk	1.79	-0.79	-0.29	1.56
8	Financials	ASRM	Asuransi Ramayana Tbk	1.99	0.11	0.04	1.50
9	Financials	BHAT	Bhakti Multi Artha Tbk	0.95	0.01	0.03	2.06
10	Financials	JMAS	Asuransi Jiwa Syariah Jasa Mitra Abadi Tbk	1.51	0.05	0.19	1.66
11	Financials	LIFE	Asuransi Jiwa Sinarmas MSIG Tbk	1.09	0.03	0.08	1.93
12	Financials	LPGI	Lippo General Insurance Tbk	2.48	0.15	0.06	1.40
13	Financials	MTWI	Malacca Trust Wuwungan Insurance Tbk	4.24	0.01	0.00	1.24
14	Financials	PNIN	Paninvest Tbk	0.14	0.05	0.75	8.16
15	Financials	PNLF	Panin Financial Tbk	0.15	0.05	0.44	7.65
16	Financials	TUGU	Asuransi Tugu Pratama Indonesia Tbk	1.30	0.04	0.07	1.77
17	Financials	VINS	Victoria Insurance Tbk	0.77	0.05	0.07	2.29

Figure 3. Financial Data dan Ratio Desember 2022

Based on data processed using SPSS with the K-Means Clustering method, the Final Output can be seen in the following table, showing that the Final Cluster is divided into 5 clusters. With the ratios analysed, namely the DER, ROE, NPM and RBC ratios originating from 17 insurance companies listed on the Indonesia Stock Exchange as presented in figure 4 which shows that data processing in SPSS software is valid for these 17 insurance companies without any missing.

Number of Cases in each Cluster December 2021			Number of Cases in each Cluster December 2022		
Cluster	1	1.000	Cluster	1	5.000
	2	2.000		2	2.000
	3	6.000		3	3.000
	4	2.000		4	2.000
	5	6.000		5	5.000
Valid		17.000	Valid		17.000
Missing		0.000	Missing		0.000

Figure 4. Number of Cases in Cluster 2021 and 2022

The following outcomes were produced after the data was processed using four variables that were evaluated using SPSS to determine if the company is qualified for acquisition:

	Final Cluster Centers Dec 2021 & Dec 2022									
	Cluster Dec 2021					Cluster Dec 2022				
	1	2	3	4	5	1	2	3	4	5
<b>DER</b>	0.33	3.11	0.94	0.16	1.81	0.66	2.15	0.15	1.38	4.24
<b>ROE</b>	0.03	-0.11	0.02	0.05	0.08	0.04	-0.11	0.05	0.04	0.01
<b>NPM</b>	0.20	-0.04	0.05	0.53	0.06	0.09	-0.03	0.60	0.08	0.00
<b>RBC</b>	4.07	1.33	2.14	7.30	1.56	2.54	1.47	7.91	1.77	1.24
<b>Grade Status</b>	B	E	C	A	D	B	E	A	C	D

Figure 5. Final Cluster Centers 2021 & 2022

Based on the above SPSS data results, five types of clusters will be formed:

Grade	Status Type
A	Very Good
B	Good
C	Adequate
D	Poor
E	Very Poor

Figure 6. Grades Status of Final Cluster

The sufficiency ratio between the debt-to-equity ratio (DER) is used to calculate this; a lower DER denotes higher equity obtained and has a favorable effect on the financial position of the organization. A greater Return on Equity (ROE) figure is advantageous to the business. The net profit after taxes is represented by the net profit margin (NPM), and a larger number than the aim indicates that the business is financially sound. The Financial Services Authority (OJK) targets that all insurance businesses have a Risk Based Capital (RBC) value of 120%, per POJK 71 of 2016.

Thus, the following will be the definition of the 17 insurance companies' cluster membership status type:

Cluster Membership Dec 2021 - Dec 2022								Change Cluster	Potential to be Acquired
Case Number	StockName	Cluster 2021	Cluster 2022	TYPE 2021	TYPE 2022	Distance 2021	Distance 2022		
1	Asuransi Bina Dana Arta Tbk	3	1	C	B	0.44	0.15	Increase	
2	Asuransi Harta Aman Pratama Tbk	2	2	E	E	0.24	0.38	Stable	✓
3	Asuransi Multi Artha Guna Tbk	5	2	D	E	0.14	0.30	Decrease	✓
4	Asuransi Bintang Tbk	5	4	D	C	0.03	0.33	Increase	
5	Asuransi Dayin Mitra Tbk	5	4	D	C	0.07	0.42	Increase	
6	Asuransi Jasa Tania Tbk	3	1	C	B	0.33	0.21	Increase	
7	Asuransi Maximus Graha Persada Tbk	3	2	C	E	0.30	0.82	Decrease	✓
8	Asuransi Ramayana Tbk	5	2	D	E	0.32	0.28	Decrease	✓
9	Bhakti Multi Artha Tbk	1	4	B	C	0.00	0.52	Decrease	
10	Asuransi Jiwa Syariah Jasa Mitra Abadi Tbk	3	4	C	C	0.46	0.21	Stable	
11	Asuransi Jiwa Sinarmas MSIG Tbk	3	4	C	C	0.27	0.33	Stable	
12	Lippo General Insurance Tbk	5	2	D	E	0.19	0.43	Decrease	✓
13	Malacca Trust Wuwungan Insurance Tbk	2	5	E	D	0.24	0.00	Increase	
14	Paninvest Tbk	4	3	A	A	0.22	0.30	Stable	
15	Panin Financial Tbk	4	3	A	A	0.22	0.30	Stable	
16	Asuransi Tugu Pratama Indonesia Tbk	5	4	D	C	0.44	0.08	Increase	
17	Victoria Insurance Tbk	3	1	C	B	0.35	0.27	Increase	

Figure 7. Cluster Membership 2021 - 2022

It is evident from the statistics above that certain organizations underwent changes between financial ratio per December 2021 and December 2022. There are seven companies whose status increased, five whose status decreased, and five whose status stable. Two businesses, Paninvest Tbk and Panin Financial Tbk, were also discovered to be acceptable acquirers based on the data, with a grade status of "Very Good." Conversely, five firms with a grade status of "Very Poor" are considered ideal for acquisition: Asuransi Harta Aman Pratama, Asuransi Multi Artha Guna Tbk, Asuransi Maximus Graha Pers, Asuransi Ramayana Tbk, and Lippo General Insurance Tbk. The final clustering results in this research have the same results as research by Purba, A. T. A., Zarkasih. A. R., & Heikal, J. (2023), said that the five insurance companies with grade E (Very Poor) in December 2022 have the potential to be acquired.

According to news from CNBC, the information was quoted from the website portal page of hanwhalife.co.id, that in March 2023 the second largest insurance company in Korea, Hanwha Life, officially acquired shares in PT Lippo General Insurance Tbk (LPGI). This action made Hanwha the controlling shareholder of LPGI with a portion of 62.59%. However, this Korean insurance company does not have direct shares in LPGI. The change in control of the company has no impact on the company's operational activities, law, financial condition or business continuity.

PT Lippo General Insurance Tbk is known to have total assets of IDR 2.93 trillion in 2022. This general insurance company, which was founded in 1963, was previously owned by PT Inti Anugerah Pratama (PT IAP) and PT Star Pacific Tbk (LPLI). The departure of PT Inti Anugerah Pratama means giving up the company's status as the controller of LPGI. This is in line with the OJK approval letter No. S-3/PD.02/2023 dated August 21 regarding approval for changes in LPGI control. Citing information disclosure from the Indonesian Stock Exchange (BEI), the general insurance management previously controlled by the Lippo group said that PT Inti Anugerah Pratama was no longer the controller of LPGI.

In the next part of this research, the analysis result from the financial clustering ratio of December 2022 compared to December 2023 will be presented. Was there a change in the segmentation of the value status of PT Lippo General Insurance Tbk in this period in a better direction as a result of the acquisition by Hanwha Life or was it vice versa.

#### Indonesian insurance companies' financial ratios for December 2023

The financial data and ratios of December 2023 based on information from the official Indonesia Stock Exchange website ([www.idx.co.id](http://www.idx.co.id)), as follow:

Case Number	Sector	Code	Stock Name	DER	ROE	NPM	RBC
1	Financials	ABDA	Asuransi Bina Dana Arta Tbk	0.72	0.04	0.08	2.39
2	Financials	AHAP	Asuransi Harta Aman Pratama Tbk	3.62	0.02	0.01	1.28
3	Financials	AMAG	Asuransi Multi Artha Guna Tbk	2.00	0.09	0.05	1.50
4	Financials	ASBI	Asuransi Bintang Tbk	1.52	0.03	0.03	1.67
5	Financials	ASDM	Asuransi Dayin Mitra Tbk	1.64	0.06	0.02	1.61
6	Financials	ASJT	Asuransi Jasa Tania Tbk	0.54	0.01	0.02	2.86
7	Financials	ASMI	Asuransi Maximus Graha Persada Tbk	1.74	-0.04	-0.01	1.58
8	Financials	ASRM	Asuransi Ramayana Tbk	1.92	0.14	0.05	1.52
9	Financials	BHAT	Bhakti Multi Artha Tbk	1.04	0.01	0.02	1.96
10	Financials	JMAS	Asuransi Jiwa Syariah Jasa Mitra Abadi Tbk	1.85	0.02	0.05	1.48
11	Financials	LIFE	Asuransi Jiwa Sinarmas MSIG Tbk	0.98	0.03	0.10	2.02
12	Financials	LPGI	Lippo General Insurance Tbk	2.28	0.03	0.01	1.44
13	Financials	MTWI	Malacca Trust Wuwungan Insurance Tbk	3.21	0.04	0.02	1.31
14	Financials	PNIN	Paninvest Tbk	0.13	0.03	0.53	8.81
15	Financials	PNLF	Panin Financial Tbk	0.14	0.06	0.59	8.32
16	Financials	TUGU	Asuransi Tugu Pratama Indonesia Tbk	1.45	0.13	0.14	1.69
17	Financials	VINS	Victoria Insurance Tbk	0.58	0.04	0.05	2.72

Figure 8. Financial Data dan Ratio December 2023

After the data was processed using four variables that were assessed using SPSS to ascertain whether the company is eligible for purchase, the following results were generated:

Final Cluster Centers Dec 2023					
	Cluster				
	1	2	3	4	5
<b>DER</b>	0.61	3.42	1.91	0.14	1.25
<b>ROE</b>	0.03	0.03	0.05	0.05	0.05
<b>NPM</b>	0.05	0.02	0.03	0.56	0.07
<b>RBC</b>	2.66	1.30	1.52	8.57	1.84

  

Grade Status	B	E	D	A	C
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Figure 9. Final Cluster Centers 2023

From the final clustering results above, continue by comparing these results with the final clustering results in December 2022. The results of cluster membership of 17 insurance companies between December 2022 and December 2023 are as follows:

Cluster Membership Dec 2022 - Dec 2023								Change Cluster
Case Number	StockName	Cluster 2022	Cluster 2023	TYPE 2022	TYPE 2023	Distance 2022	Distance 2023	
1	Asuransi Bina Dana Arta Tbk	1	1	B	B	0.15	0.29	Stable
2	Asuransi Harta Aman Pratama Tbk	2	2	E	E	0.38	0.21	Stable
3	Asuransi Multi Artha Guna Tbk	2	3	E	D	0.30	0.11	Increase
4	Asuransi Bintang Tbk	4	5	C	C	0.33	0.32	Stable
5	Asuransi Dayin Mitra Tbk	4	3	C	D	0.42	0.28	Decrease
6	Asuransi Jasa Tania Tbk	1	1	B	B	0.21	0.22	Stable
7	Asuransi Maximus Graha Persada Tbk	2	3	E	D	0.82	0.20	Increase
8	Asuransi Ramayana Tbk	2	3	E	D	0.28	0.09	Increase
9	Bhakti Multi Artha Tbk	4	5	C	C	0.52	0.25	Stable
10	Asuransi Jiwa Syariah Jasa Mitra Abadi Tbk	4	3	C	D	0.21	0.08	Decrease
11	Asuransi Jiwa Sinarmas MSIG Tbk	4	5	C	C	0.33	0.33	Stable
12	Lippo General Insurance Tbk	2	3	E	D	0.43	0.38	Increase
13	Malacca Trust Wuwungan Insurance Tbk	5	2	D	E	0.00	0.21	Decrease
14	Paninvest Tbk	3	4	A	A	0.30	0.25	Stable
15	Panin Financial Tbk	3	4	A	A	0.30	0.25	Stable
16	Asuransi Tugu Pratama Indonesia Tbk	4	5	C	C	0.08	0.27	Stable
17	Victoria Insurance Tbk	1	1	B	B	0.27	0.07	Stable

Figure 10. Cluster Membership 2022 - 2023

From the results of cluster membership in the period December 2022 to December 2023, there were 10 (ten) insurance companies that were still stable, 3 (three) insurance companies experienced a decrease, and 4 (four) other insurance companies experienced an increase, one of the companies that experienced an increase as of December 2023 was PT Lippo General Insurance Tbk (LPGI). According to research results by Purba, A. T. A.,

Zarkasih. A. R., & Heikal, J. (2023), in the period December 2021 to December 2022 it is true that the LPGI has decreased from grade D (Poor) to grade E (Very Poor). Meanwhile, in the period December 2022 to December 2023, LPGI experienced an increase in grade status from grade E to grade D.

It can be concluded that the acquisition of LPGI by Hanhwa Life synergizes well so that it can increase LPGI's status grade from grade E (very poor) to grade D (poor). In just 9 months (March 2023 – Dec 2023) from the acquisition by Hanwha Life, LPGI experienced a positive increase in terms of its financial ratios. It is important to carry out further research, where the research is to assess the financial performance of LPGI on an ongoing basis.

## CONCLUSION

The analysis of financial performance segmentation changes among Indonesian insurance companies listed on the Indonesia Stock Exchange (IDX) reveals significant insights into the industry's resilience and adaptability in the wake of the Covid-19 pandemic. The research highlights the critical role of financial ratios such as the Debt-to-Equity Ratio (DER), Return on Equity (ROE), Net Profit Margin (NPM), and Risk-Based Capital (RBC) in assessing the financial health of these companies.

The findings indicate that the pandemic has reshaped the financial landscape, prompting insurers to reevaluate their strategies and operational efficiencies. The clustering analysis conducted using SPSS demonstrates the emergence of distinct financial profiles among companies, which can aid potential acquirers in identifying synergies and assessing risks in acquisition strategies. Moreover, the ongoing research into the financial ratios for December 2023 compared to December 2022 will provide further clarity on the impact of acquisitions, such as that of PT Lippo General Insurance Tbk by Hanwha Life, and whether these moves have resulted in synergistic benefits.

Ultimately, this study contributes to a deeper understanding of the dynamics within the Indonesian insurance market, offering valuable implications for decision-makers, regulators, and industry analysts. By fostering a more resilient and competitive insurance landscape, stakeholders can better navigate the uncertainties of the economic environment and enhance the overall stability of the sector.

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