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ORIGINAL

The Effect of Capital Structure and Liquidity on Financial Sustainability Through Performance

La Influencia de la Estructura de Capital y la Liquidez en la Sostenibilidad Financiera a Través del Desempeño

Nani Rohaeni[1,2], Meutia[1], Ina Indriana[3], Yeni Januarsi[3]

[1]Faculty of Economics and Business, Sultan Ageng Tirtayasa University. Serang, Indonesia.
[2]Indonesia and Lecturer of Universitas Bina Bangsa. Indonesia.
[3]Senior Lecturer, Faculty of Economics and Business, Sultan Ageng Tirtayasa University. Indonesia.

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Corresponding Author: Nani Rohaeni

ABSTRACT

Introduction: this study was conducted to determine whether there is a relationship between capital structure and liquidity to financial sustainability through financial performance as a mediating variable. Because in some cases capital structure has an important role in business activities in a company.
Objective: this study aims to analyze the effect of capital structure and liquidity on financial sustainability with financial performance as a mediating variable. Capital structure is measured using the Debt to Equity Ratio (DER), liquidity is measured using the Loan to Deposit Ratio (LDR), financial performance is measured using Return on Equity (ROE), and financial sustainability is measured by the Sustainable Growth Rate (SGR).
Method: this study uses a quantitative approach with a causal design. Secondary data were obtained from the financial statements of companies listed on the Indonesia Stock Exchange (IDX) in the banking sector during the period 2018-2023. The data analysis methods used in this study are classical assumption tests and multiple linear regression to analyze direct effects and to analyze mediation effects.
Results: the findings of this study prove that capital structure and liquidity have a positive and significant effect on financial performance. Capital structure and liquidity have a positive and significant effect on financial sustainability. Financial performance is proven to have an effect on financial sustainability. Financial performance is also proven to mediate the effect of capital structure and liquidity on financial sustainability.
Conclusions: these findings indicate that optimal management of capital structure and liquidity, accompanied by improved financial performance, can improve the financial sustainability of the company.

Keywords: Capital Structure; Liquidity; Financial Performance; Financial Sustainability.

RESUMEN

Introducción: este estudio se realizó para determinar si existe una relación entre la estructura de capital y la liquidez con la sostenibilidad financiera a través del desempeño financiero como variable mediadora. Porque en algunos casos la estructura de capital tiene un papel importante en las actividades comerciales de una empresa.
Objetivo: este estudio tiene como objetivo analizar el efecto de la estructura de capital y la liquidez en la sostenibilidad financiera con el desempeño financiero como variable mediadora. La estructura de capital se mide utilizando la relación deuda a capital (DER), la liquidez se mide utilizando la relación préstamo a depósito (LDR), el desempeño financiero se mide utilizando el rendimiento sobre el capital (ROE) y la sostenibilidad financiera se mide mediante la tasa de crecimiento sostenible (SGR).

Método: este estudio utiliza un enfoque cuantitativo con un diseño causal. Los datos secundarios se obtuvieron de los estados financieros de las empresas que cotizan en la Bolsa de Valores de Indonesia (IDX) en el sector bancario durante el período 2018-2023. Los métodos de análisis de datos utilizados en este estudio son pruebas de supuestos clásicos y regresión lineal múltiple para analizar los efectos directos y analizar los efectos de mediación.
Resultados: los resultados de este estudio demuestran que la estructura de capital y la liquidez tienen un efecto positivo y significativo en el desempeño financiero. La estructura de capital y la liquidez tienen un efecto positivo y significativo en la sostenibilidad financiera. Se ha demostrado que el desempeño financiero tiene un impacto en la sostenibilidad financiera. También se ha demostrado que el desempeño financiero media la influencia de la estructura de capital y la liquidez en la sostenibilidad financiera.
Conclusiones: estos hallazgos indican que la gestión óptima de la estructura de capital y la liquidez, acompañada de un mejor desempeño financiero, puede mejorar la sostenibilidad financiera de la empresa.

Palabras clave: Estructura de Capital; Liquidez; Desempeño Financiero; Sostenibilidad Financiera.

INTRODUCTION

In a competitive business world, financial sustainability is one of the main indicators of a company's success. Financial sustainability reflects a company's ability to maintain its operations in the long term without facing the risk of bankruptcy.[1] This aspect is not only important for companies, but also for stakeholders such as investors, creditors and the wider community.[2] Factors such as capital structure and liquidity have a significant influence on financial sustainability, thus requiring special attention in corporate management.[3]

Capital structure refers to the ratio of debt and equity used by a company to finance its assets and operations.[4] Decisions about capital structure involve complex considerations, as high debt ratios can increase financial risk, while high equity ratios can limit a company's growth. Therefore, understanding the effect of capital structure on financial performance is essential in achieving financial sustainability.[5]

Liquidity, on the other hand, indicates a company's ability to meet its short-term obligations.[6] A good level of liquidity indicates that a company is able to face financial challenges without having to sell important assets or take on additional debt. However, too many liquid assets can indicate that a company is not utilizing its resources optimally. Therefore, maintaining a balance of liquidity is one of the keys to ensuring financial stability and sustainability.[5]

Financial performance is often an intermediary indicator that links capital structure and liquidity with financial sustainability.[7] Financial performance reflects a company's operational efficiency and profitability, which directly affects investor confidence and access to funding sources.[8] With good financial performance, companies can more easily achieve financial sustainability even when facing pressure from capital structure or liquidity.[9]

The relationship between capital structure, liquidity, financial performance, and financial sustainability is not linear, but rather very complex. Various external factors such as macroeconomic conditions, government policies, and market dynamics also play a role in influencing this relationship.[10] Further research is needed to explore how companies can optimize their capital structure and liquidity to have a positive impact on financial sustainability through financial performance.[2]

Based on this background, this study aims to know the effect of capital structure and liquidity on financial sustainability through financial performance. By understanding this relationship in depth, the results of the study are expected to provide both theoretical and practical contributions to corporate financial management.

Capital structure is the composition of debt and equity used by a company to fund operational and investment activities. The most basic theory of capital structure, namely Modigliani and Miller Theory (1958), states that in perfect market conditions, capital structure does not affect the value of the company.[11] However, with factors such as taxes, bankruptcy costs, and information asymmetry, capital structure decisions become an important element in influencing the value and stability of the company. Meanwhile, financial sustainability includes the company's ability to maintain its activities in the long term by managing financial risks and taking advantage of market opportunities.[12] Companies with a balanced capital structure tend to have better financial flexibility to face economic uncertainty and market dynamics. Conversely, companies with a suboptimal capital structure, for example, a debt ratio that is too high, may face liquidity pressures that disrupt their financial sustainability.[13] Capital structure greatly affects the financial sustainability of the company because the optimal capital structure can minimize the company's cost of capital, thereby increasing profitability and strengthening the long-term financial position. High debt ratios increase the risk of bankruptcy, especially in unstable economic conditions. Therefore, a healthy capital structure helps manage this risk by maintaining a balance between debt and equity.[14]

Liquidity ratios, such as the current ratio and quick ratio, are key indicators for assessing whether a company has sufficient current assets to pay its obligations in the near future.[15] Liquidity plays an important role in maintaining the company's financial stability.[16] With a good level of liquidity, companies have the flexibility to face operational challenges, such as revenue fluctuations, unexpected costs, or changes in market conditions. Conversely, low liquidity can trigger a financial crisis, increase the risk of default, and threaten the sustainability of the company's operations.[1] Financial sustainability reflects a company's ability to survive in the long term, manage risks, and maintain sustainable growth. Companies with adequate liquidity are more likely to be able to weather economic uncertainty and meet short-term funding needs without sacrificing strategic investments.[9] Thus, strong liquidity is an important prerequisite for achieving financial sustainability.[17]

Capital structure refers to the combination of financing used by a company, which generally consists of debt and equity. Decisions regarding capital structure play a vital role in determining the balance between risk and return, which directly affects the financial performance of the company.[18] Optimal capital structure is expected to maximize the value of the company by minimizing the overall cost of capital. Financial performance reflects the effectiveness of the company in managing its assets, capital, and debt to generate profits.[7] Good financial performance shows that the company is able to manage existing resources efficiently to achieve its strategic goals.[14] Capital structure affects a company's financial performance through several mechanisms, such as in the case of the use of debt allowing the company to increase funding without diluting equity ownership.[13] However, high interest burden from debt can reduce net income, thus suppressing profitability. Therefore, it is important for companies to optimize capital in order to improve financial performance.[1]

Liquidity is often measured through financial indicators such as current ratio, quick ratio, and cash ratio.[19] This ratio measures the extent to which current assets are able to cover current liabilities. Quick ratio is a ratio that shows the company's ability to meet short-term obligations without taking into account inventory.[20] This provides a more conservative view of liquidity.

Meanwhile, financial performance is a picture of the company's financial achievements in a certain period. Financial performance measures often include profitability, solvency, and operational efficiency. Adequate liquidity plays an important role in maintaining the smooth operation of the company and avoiding the risk of bankruptcy. However, too many current assets can indicate inefficiency because funds are not used productively.[8]

Financial performance is the result of a company's activities that reflect the level of effectiveness and efficiency in managing financial resources. While financial sustainability is the company's ability to maintain long-term financial stability by meeting financial obligations, minimizing risk, and supporting growth.[7] Financial performance and financial sustainability are two fundamental concepts in financial management and business strategy. Financial performance reflects a company's ability to manage resources to achieve profitability, efficiency, and stability.[3]

Meanwhile, financial sustainability emphasizes a company's ability to survive in the long term through risk management, growth, and value creation.[9] Positive financial performance creates a strong foundation for financial sustainability through increased capital, reduced bankruptcy risk, and the ability to invest in strategic initiatives.[20]

METHOD

Research design

This study uses a quantitative research design with a causal approach to analyze the effect of capital structure and liquidity on financial sustainability with financial performance as a mediating variable.

Place and time of research

This research will be conducted over a period of 6 months, starting from the collection of financial data of banking companies listed on the Indonesia Stock Exchange (IDX) for the past 6 years. The research location is specifically focused on the IDX digital platform as the main data source, with data processing carried out virtually using SPSS software. All data used comes from banking companies listed on the IDX, so the physical location of the company is in Indonesia, although data access and processing can be done boldly.

Population and sample

The population in this study are companies listed on the Indonesia Stock Exchange (IDX) in the banking sector during the last 6 years. The sample in this study was taken using a purposive sampling technique with the criteria of companies that published complete financial reports during the study period and companies that have data related to the research variables.

Data collection

Data collection in this study was carried out by accessing financial reports of companies in the banking sector from 2018 to 2023 listed on the Indonesia Stock Exchange (IDX) via the official IDX website.

Data analysis

The data collection technique in this study is secondary data obtained from the company's financial reports that have been published on the official website of the Indonesia Stock Exchange or other trusted sources. The data analysis technique uses classical assumption tests and multiple linear regression analysis.

Proxi

Capital Structure Formula

$$DER = \frac{total\ debt}{total\ equity}$$

Or in percentage form:

$$DER = \frac{total\ debt}{total\ equity}\ x\ 100\ \%$$

Information:
- Total Debt: includes short-term debt and long-term debt.
- Total Equity: own capital, retained earnings or other equity.

Liquidity Formula

$$LDR = \frac{total\ credit}{total\ third\ party\ funds}\ x\ 100\ \%$$

Information:
- Total Credit: total loans provided by the bank to customers.
- Total Third Party Funds: total funds collected from the public in the form of current accounts, savings and deposits.

Financial Performance Formula

$$ROE = \frac{net\ profit}{Total\ equity}\ x\ 100\ \%$$

Information:
- Net Profit: the net profit after tax earned by a company in a period.
- Total Equity: own capital which includes shares, retained earnings, and other equity components.

Financial sustainability Formula

$$SGR = \frac{Net\ profit}{Total\ Equity}\ x\ (1 - \frac{dividends\ paid}{Net\ Profit})\ 100\ \%$$

RESULTS

Table 1. Normality Test

		Unstandardized Residual
N		282
Normal parameters	Mean	0,0000000
	Std. Deviation	5,70060176
Most Extrame Differences	Absolute	0,253
	Positive	0,253
	Negative	-0,168
Test Statistic		0,253
Asymp sig. (2-tailed)		0,000[c]

Source: SPSS Output
Note: a. Test distribution in normal. b. Calculated from data. c. Lilliefors Significance Correction.

The classical assumption test is a requirement to be able to use multiple regression equations, namely the fulfillment of the classical assumption test. In this study, the first classical assumption test is the normality test using the one-sample non-parametric Kolmogorov-Smirnov statistical test.

Based on the SPSS output in table 1 One-Sample Kolmogorov-Smirnov Test in the normality test, the Asymp. Sig (2-tailed) value is 0,000. Because this value is smaller than 0,05, it is concluded that the data is not normally distributed.

Furthermore, the multicollinearity test with the criteria of tolerance value >0,100 and VIF <10 means that the data does not show symptoms of multicollinearity. The following are the results of the multicollinearity test in this study can be seen in table 2 below:

Table 2. Multicollinearities Test

Coefficient			
Model		**Collinearity Statistics**	
		Tolerance	**VIF**
1	Capital Structure	0,156	6,430
	Liquidity	0,222	4,512
	Financial performance	0,131	7,633

Source: SPSS output
Note: a. Dependent Variable: abs_RES

Based on the SPSS output results in table 2 regarding the multicollinearity test above, it can be interpreted that all variables have a tolerance value of more than 0,1 and a VIF value of less than 10, so it can be concluded that the data does not show symptoms of multicollinearity.

Next, the last classical assumption test is the heteroscedasticity test which can be seen in the scatterplot graph below:

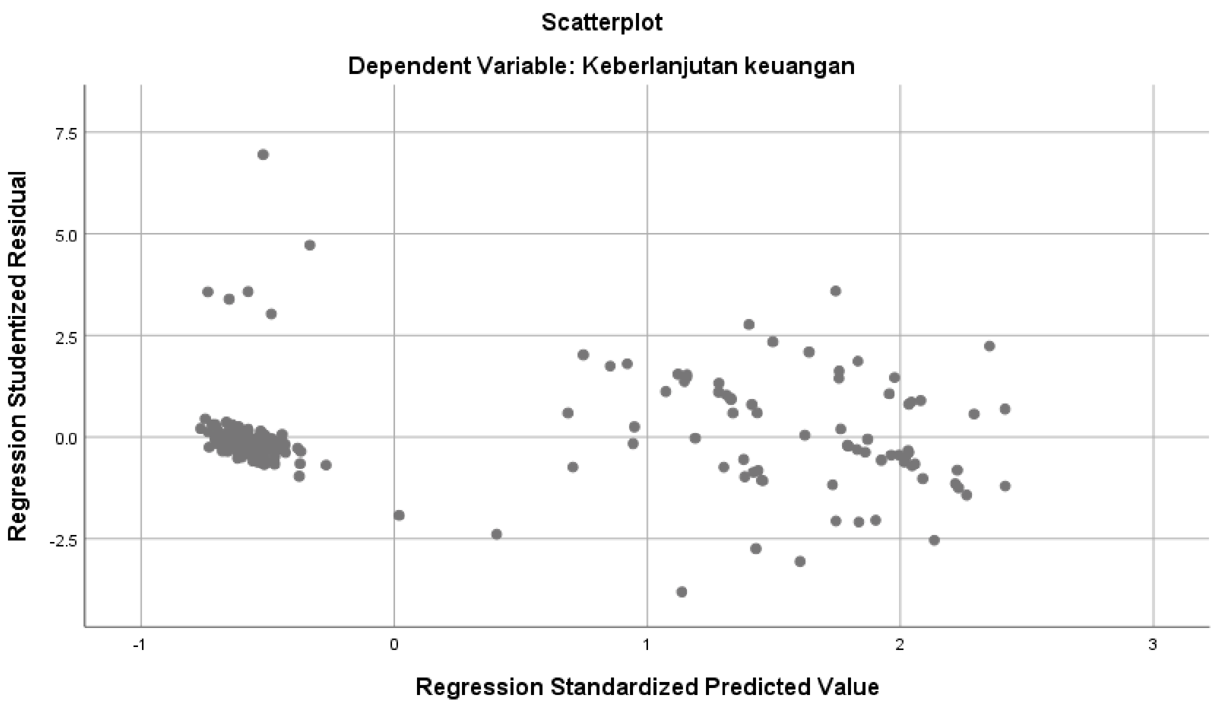

Figure 1. Scatterplot graph

Based on the scatterplot above, it can be seen that the points are more randomly spread, meaning that there are no symptoms of heteroscedasticity in the regression model.

Multiple linear regression analysis in this study is used to calculate the magnitude of the influence of independent variables on dependent variables through variable Z as a mediating variable. The following is the SPSS output on the influence of capital structure and liquidity on financial sustainability which can be seen in table 3 below:

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Table 3. Capital Structure and Liquidity Towards Financial Sustainability

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0,276	0,526		0,524	0,601
	Capital Structure	0,672	0,057	0,625	11,811	0,000
	Liquidity	0,280	0,051	0,289	5,453	0,000

Source: SPSS output Results
Note: a. Dependent Variable: Financial Sustainability

Based on the SPSS output results above, it can be interpreted that the significance value of the capital structure variable is 0,000<0,05 so that the capital structure has an effect on financial performance. Furthermore, the significance value of the liquidity variable of 0,000<0,05 can be interpreted that liquidity has an effect on financial sustainability.

Table 4. The Effect of Capital Structure and Liquidity on Financial Performance

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-0,875	0,429		-2,039	0,042
	Capital Structure	0,696	0,046	0,613	15,007	0,000
	Liquidity	0,362	0,042	0,354	8,649	0,000

Source: SPSS Output Results
Note: a. Dependent Variable: Financial Performance

Based on the SPSS output results above, it can be interpreted that the significance value of the capital structure variable is 0,000<0,05 so that the capital structure has an effect on financial performance. Furthermore, the significance value of the liquidity variable is 0,000<0,05 so that it can be interpreted that liquidity has an effect on financial performance.

Table 5. The Influence of Financial Performance on Financial Sustainability

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0,749	0,477		1,569	0,118
	Capital Structure	0,296	0,069	0,275	4,302	0,000
	Liquidity	0,084	0,052	0,087	1,624	0,106
	Financial performance	0,540	0,066	0,570	8,178	0,000

Source: SPSS Output Results
Note: a. Dependent Variable: Financial Sustainability

Based on the SPSS output above, it can be seen that the significance value of the financial performance variable is 0,000< 0,05, so it can be concluded that financial performance has a significant effect on financial sustainability.

Referring to Steps 1 to 3 above, it is concluded that the financial sustainability variable mediates the effect of capital structure on financial performance, and the financial sustainability variable also mediates the effect of liquidity on financial performance.

DISCUSSION

The influence of capital structure on financial sustainability

This study proves that capital structure has a positive and significant effect on the Company's financial sustainability. Optimal capital structure can provide a positive contribution to the Company's financial sustainability. Capital structure also plays a very important role in increasing the Company's efficiency and effectiveness so that all Company objectives can run well.[21,21]

This research is in line with research conducted by Bugshan A et al.[13] which states that capital structure has a very crucial impact in improving the sustainability of a Company. In this case, capital structure becomes a very important part that is useful for the smooth running of business in a Company that can be useful in improving the financial sustainability of the Company.[22,23]

The influence of liquidity on financial sustainability

The results of this study provide the fact that liquidity has a significant influence on the financial sustainability of the Company. With good liquidity, the Company can meet all its short-term obligations with current assets available in the Company. Good liquidity also has an important role in the productivity of the company which is useful for the financial sustainability of the Company.[24,25]

In line with research conducted by Fecht et al.[5] which provides the opinion that liquidity has a significant influence on financial sustainability in a Company engaged in the financial and manufacturing sectors. Liquidity owned by a Company in the financial and manufacturing sectors has a very important impact on the Company's operational running so that it can stabilize the Company's financial sustainability.[26,27]

The effect of capital structure on financial performance

The findings of this study state that there is a positive and significant influence between capital structure and financial performance. An appropriate or balanced capital structure can allow the Company to utilize funding to increase profitability without incurring financial risk. An effective and efficient capital structure can be very important to ensure the growth of the Company's financial performance.[28,29]

The results of the study conducted by Dugulean[7] are in line with this study which states that capital structure affects financial performance because a good capital structure can support financial flexibility in dealing with changes in economic conditions. Companies with a good capital structure find it easier to obtain additional capital for expansion or investment without causing financial pressure.

The effect of liquidity on financial performance

The results of this study indicate that liquidity has a positive and significant influence on financial performance because good liquidity can reflect the Company's ability to meet all short-term obligations owned by the Company. With sufficient liquidity, the Company will be more flexible in making strategic decisions for the Company.[30,31,32,33]

This study is similar to the findings conducted by Yin et al.[15] which states that liquidity has a positive and significant impact on financial performance. With high liquidity, profitability can be increased because the Company is able to avoid additional costs such as late payment fines and high short-term loan interest. Companies that have stable cash flow tend to have more effective Company operations so that they can improve financial performance.[26,34]

Financial sustainability on financial performance

The results of this study indicate that financial sustainability has a significant influence on financial performance because companies that have good financial sustainability tend to be more resilient to economic changes and can reduce the risk of bankruptcy.[35,36,37,38] Companies that can manage efficient financial resources can have an effect on debt control and income diversification which are useful for ensuring cash flow runs smoothly and sustainably.[39,40,41,42]

This study is in line with research from Al-otaibi et al.[2] stating that financial sustainability has a positive and significant effect on financial performance. Good financial sustainability can have a positive impact on the Company related to product innovation, business expansion and improving employee performance, all of which contribute to improving the Company's overall financial performance.[43,44]

Capital structure and liquidity on financial performance through financial sustainability

The results of this study indicate that financial sustainability is able to mediate between capital structure and liquidity on financial performance. Where capital structure and liquidity have an important role in determining financial performance in a Company, especially through financial sustainability. An optimal capital structure can enable the Company to manage financial risk well, while good liquidity can ensure that the Company has sufficient current assets to meet the Company's short-term obligations. If these two factors can be managed well, it can maintain financial sustainability which has an impact on improving financial performance.[45,46]

This is in line with research conducted by Yin et al.[15] which states that financial sustainability acts as an intermediary that connects capital structure and liquidity with financial performance. Companies that have a healthy capital structure and good liquidity levels can maintain the stability of the Company's cash flow and improve the Company's operational efficiency. Financial sustainability can help optimize a Company's financial resources to improve the Company's performance and value in the long term which can ultimately improve the Company's financial performance.[47,48]

CONCLUSIONS

Based on the results of the analysis, it can be concluded that:

1. The Effect of Capital Structure on Financial Performance: optimal capital structure, measured by Debt to Equity Ratio (DER), has a positive and significant effect on the company's financial performance. Companies with a more balanced capital structure tend to have better financial performance.
2. The Effect of Liquidity on Financial Performance: liquidity, as measured by the Loan to Deposit Ratio (LDR), also has a positive effect on a company's financial performance. Companies with good liquidity can manage cash flow more efficiently, which supports improved financial performance.
3. The influence of capital structure on financial sustainability: capital structure has a positive and significant influence on financial sustainability, meaning that a good capital structure can make the company's financial sustainability run optimally and can increase the productivity of the company's financial performance.
4. The Influence of Liquidity on Financial Sustainability: liquidity has a positive and significant influence on financial sustainability, meaning that the wiser the company is in managing liquidity, the better the company's financial sustainability will be.
5. The Impact of Financial Performance on Financial Sustainability: financial performance, as measured by Return on Equity (ROE), has been shown to have a positive impact on a company's financial sustainability. Companies with good financial performance are better able to maintain financial stability and long-term growth.
6. The Role of Financial Performance as a Mediating Variable: financial performance acts as a mediating variable that strengthens the influence of capital structure and liquidity on financial sustainability. This means that good capital structure and liquidity can improve a company's financial sustainability through improved financial performance.

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AUTHORSHIP CONTRIBUTION
Data curation: Nani Rohaeni, Meutia, Ina Indriana, Yeni Januarsi.
Methodology: Nani Rohaeni, Meutia, Ina Indriana, Yeni Januarsi.
Software: Nani Rohaeni, Meutia, Ina Indriana, Yeni Januarsi.
Drafting - original draft: Nani Rohaeni, Meutia, Ina Indriana, Yeni Januarsi.
Writing - proofreading and editing: Nani Rohaeni, Meutia, Ina Indriana, Yeni Januarsi.