



# THE EFFECT OF FINANCIAL RATIOS AND LOCAL GOVERNMENT CHARACTERISTICS ON FINANCIAL DISTRESS CONDITIONS (Study on Local Governments of Districts / Cities Throughout the Island of Sumatera)

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## Abstract

This research aims to test the influence of financial ratios and local government characteristics on the financial distress conditions of District/City Local Governments across the island of Sumatra. The financial ratios utilized in this study consist of effectiveness ratio, efficiency ratio, growth ratio, and budgetary solvency ratio. Meanwhile, the local government characteristics include financial independence, population size, area size, and the degree of decentralization. The data used in this research are secondary data obtained from the Budget Realization Report (LRA) published by the Directorate General of Financial Balance (DJPB) of the Ministry of Finance. The data analysis technique employed is logistic regression analysis using Eviews version 10 software. The research results indicate that effectiveness ratio, efficiency ratio, budgetary solvency ratio, financial independence of the region, and the degree of decentralization have a negative influence on the financial distress conditions of local governments. However, growth ratio and population size do not affect the financial distress conditions of local governments. On the other hand, the area size has a positive influence on the financial distress conditions of local governments the island of Sumatra.

Keywords: *Effectiveness Ratio, Efficiency Ratio, Growth Ratio, Budgetary Solvency Ratio, Regional Financial Independence, Number of Population, Area, Degree of Decentralization, and Financial Distress*

## 1. INTRODUCTION

Financial distress or financial difficulties do not only occur in companies, but also in local governments including the public sector. Financial distress in the public sector is the lack of ability possessed by local governments in carrying out their activities, be it operations, debt, infrastructure, or other development activities that aim to fulfill services to the community in accordance with established policies. In the context of Indonesia as one of the regions experiencing financial distress is the island of Sumatra. Sumatra Island is one of the largest islands in Indonesia or the third largest island in Indonesia with an area of 473,481 km<sup>2</sup> and is an island that has the most provinces in Indonesia, which is as many as 10 provinces and has 154 regencies / cities. Sumatra Island itself is currently the island that has the most regencies / cities in Indonesia reaching 154 regencies / cities, where the number of regencies / cities on the island of Sumatra itself far outperforms the number of regencies / cities on other islands in Indonesia (Oktaviani and Nailufar, 2023). Based on the results of initial observations made by the author in 10 provinces on the island of Sumatra, where the author obtained results as in the following table:

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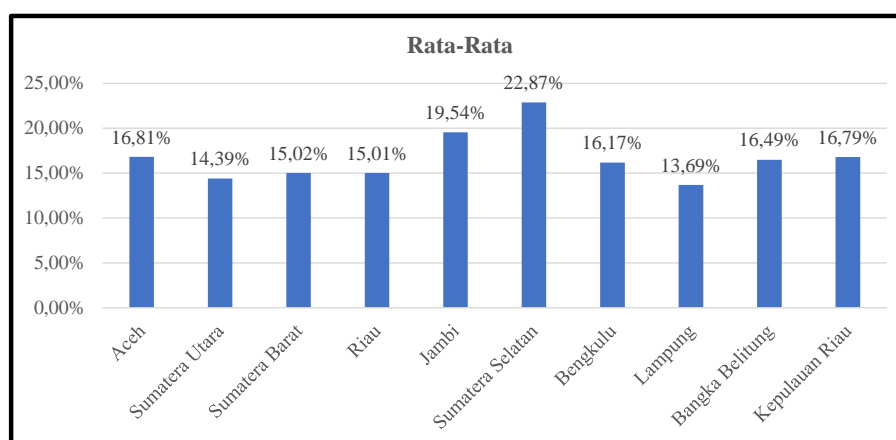
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**Table 1. Provincial Financial Distress Conditions on the Island of Sumatra**

No	Provinsi	Year	Belanja Modal	Total Spend	Financial Distres
1	Aceh	2020	Rp 1.755.472.079.286	Rp 13.242.212.801.894	13,26%
		2021	Rp 2.199.333.370.929	Rp 13.683.582.127.432	16,07%
2	North Sumatra	2020	Rp 1.497.944.969.133	Rp 12.653.607.434.218	11,84%
		2021	Rp 1.141.203.699.702	Rp 13.225.393.166.670	8,63%
3	West Sumatra	2020	Rp 736.888.360.714	Rp 6.408.293.788.337	11,50%
		2021	Rp 666.352.120.893	Rp 6.468.906.658.345	10,30%
4	Riau	2020	Rp 919.245.593.570	Rp 8.172.706.474.595	11,25%
		2021	Rp 1.018.455.078.253	Rp 8.931.704.166.450	11,40%
5	Jambi	2020	Rp 642.695.707.788	Rp 4.430.392.750.898	14,51%
		2021	Rp 449.690.683.606	Rp 4.388.299.688.277	10,25%
6	South Sumatra	2020	Rp 1.664.700.767.363	Rp 9.517.763.493.965	17,49%
		2021	Rp 1.836.834.114.021	Rp 10.060.730.260.978	18,26%
7	Bengkulu	2020	Rp 417.095.645.164	Rp 2.698.458.077.971	15,46%
		2021	Rp 324.342.084.410	Rp 2.880.225.046.730	11,26%
8	Lampung	2020	Rp 752.528.210.219	Rp 6.967.358.448.182	10,80%
		2021	Rp 849.692.114.832	Rp 7.097.651.401.591	11,97%
9	The world is in the	2020	Rp 436.502.107.450	Rp 2.575.170.436.359	16,95%
		2021	Rp 428.654.245.651	Rp 2.465.813.370.118	17,38%
10	Riau Islands	2020	Rp 586.608.798.242	Rp 3.855.203.051.882	15,22%
		2021	Rp 338.332.248.969	Rp 3.703.816.067.350	9,13%

Sumber: DJPK Kemenkeu (2023)

Based on preliminary observation data obtained by the author, where the ten provinces on the island of Sumatra during 2020-2021 are in a state of financial distress. This is as mentioned in Presidential Regulation Number 2 of 2015 concerning the National Medium-Term Development Plan (RPJMN) for 2015-2019, where the portion of capital expenditure determined is 30%. For local governments that are unable to achieve this level of capital expenditure, it can be expressed in the status of financial distress or the inability of local governments to provide public services in accordance with predetermined quality standards. In fact, in the last 3 years starting from 2019 to 2021, all provinces on the island of Sumatra are projected to experience financial distress on average. The data is as shown below:



**Figure 1. Average Financial Distress**



Based on the average financial distress conditions of the ten provinces on the island of Sumatra in the picture above shows that for the last 3 years starting from 2019 to 2021, where the ten provinces on the island of Sumatra are projected to experience problems or financial distress conditions. This is because the level of fund allocation carried out by the ten provinces has not reached 30% as stated in Presidential Regulation Number 2 of 2015 concerning the National Medium-Term Development Plan (RPJMN) for 2015-2019, where the portion of capital expenditure determined is 30% of the total regional expenditure allocation made by each regional government. This is as mentioned in Presidential Regulation Number 2 of 2015 concerning the National Medium-Term Development Plan (RPJMN) for 2015-2019, where the portion of capital expenditure determined is 30%. For local governments that are unable to achieve this level of capital expenditure, it can be expressed in the status of financial distress or the inability of local governments to provide public services in accordance with predetermined quality standards.

There are some differences between current research and research that has been done before such as research that has been done by Pradana dan Sarjiyanto (2023) and research Shiddiqy et al. (2022) as well as research that has been conducted by Elfiyana dan Arza (2022) where they don't use some variables like area, and budgetary solvency ratio. Then other research has been done by Pinasti and Poerwati (2022) and research Illahi et al. (2021) which does not use the ratio of efficiency, financial independence, and local government performance. Based on the background description and phenomenon above, it can be seen that of the 10 provinces that the author made observations through the Regional Revenue and Expenditure Budget (APBD) published by the Directorate General of Financial Balance (DJPB) of the Ministry of Finance, where the ten provinces on the island of Sumatra during 2020 to 2021 still have a capital expenditure allocation of less than 30% which has been stipulated in Presidential Regulation Number 2 Year 2015 concerning the National Medium-Term Development Plan (RPJMN) for 2015-2019. This shows that the ten provinces on the island of Sumatra are in a state of financial distress. Therefore, the author wants to conduct research on "The Effect of Financial Ratios and Local Government Characteristics on Financial Distress Conditions (Study on District/City Regional Governments on the Island of Sumatra)".

## HYPOTHESIS DEVELOPMENT

### 1. The effect of effectiveness ratio on financial distress conditions

According to Zakia and Setiawan (2021) The effectiveness ratio can describe the financial performance of local governments, a high effectiveness ratio will provide a good picture of local government performance and indicate the ability of regions to realize their regional revenues in accordance with predetermined targets. In the dependency theory itself, it is also stated that local governments that do not have dependence on the central government will be able to manage and manage their own regional finances, so that this can minimize the occurrence financial distress in an area. This shows that the more effective the local government is in using the budget it has, it will make the financial condition of the local government healthier and less likely to occur financial distress.

### 2. The effect of the efficiency ratio on financial distress conditions

Zakia and Setiawan (2021) explained that the higher the efficiency ratio, the better the performance of local governments and indications of local governments experiencing conditions financial distress is also low. A large efficiency ratio indicates that local governments are able to reduce their operational costs compared to the realization of regional revenues so that these funds can be diverted to local government capital expenditures in providing services such as carrying out infrastructure development and improving all services provided to the community. This shows that the efficiency ratio has a negative and significant influence in reducing the rate of occurrence of conditions financial distress on local government.

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**3. The effect of growth ratio on financial distress conditions**

According to Halim (2017) If a region has a higher growth ratio such as the total value of regional revenue, Regional Original Revenue (PAD), and capital expenditure followed by lower operating expenditure, then the growth is positive which means that the region is able to maintain and increase its growth from the current period to the next period. Therefore, the higher the growth ratio obtained by a region, the more it will reduce the probability of conditions financial distress in the area.

**4. The effect of budgetary solvency ratio on financial distress**

According to Dwitayanti et al. (2020) budgetary solvency ratio is a ratio used to measure the ratio between total existing income and total expenditure that must be spent. The higher the value of this ratio, the better the ability of local government revenues to finance regional expenditures including regional expenditures which will later bring long-term benefits that can be felt by outside communities. So that the higher the value of budgetary solvency ratio, the lower the probability of occurrence financial distress local government. Based on the description of the explanation above, it can be concluded that budgetary solvency ratio negative and significant effect on the condition financial distress local government.

**5. The effect of regional financial independence on financial distress conditions**

According to Halim (2017) Regional financial independence or fiscal autonomy shows that local governments have the ability to be self-sufficient to carry out government activities, develop, and provide services to communities that have paid and collected taxes as a source of regional revenue. Regional financial independence itself is indicated by the ratio of regional own income to regional income from other sources, the higher the ratio of regional financial independence, the higher the level of regional financial independence. Based on the description of the explanation, it can be concluded that regional financial independence has a negative and significant effect on conditions financial distress.

**6. The effect of population on financial distress**

According to Elfiyana dan Arza (2022) The number of population is a measurement of the complexity of an area which means that the increasing population, the demand for public services by the community will also increase because the community has an important role as a supervisor of perceived government performance through optimizing capital expenditure. Based on the description of the explanation above, it can be concluded that the population has a positive and significant effect on conditions financial distress local government.

**7. The influence of the region on financial distress conditions**

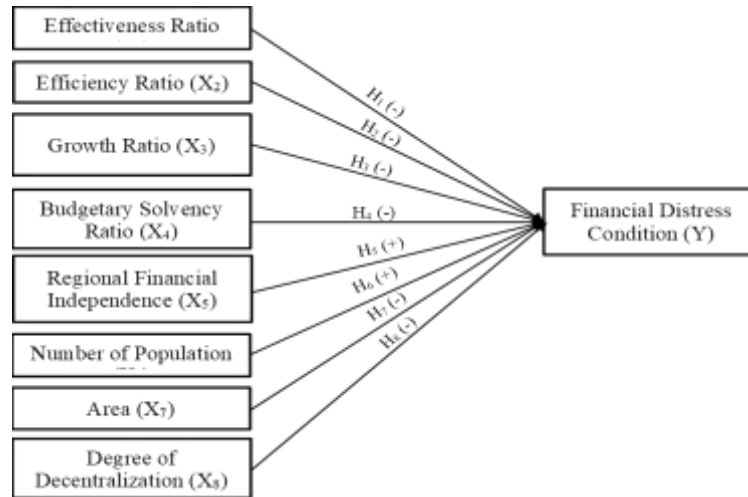
According to Sari and Arza (2019) Local government whose area is wider, then the probability to experience financial distress It will also be larger because the services and development that must be done will also be larger than the area with a smaller area. So that the wider an area whose budget cannot be maximized by the local government, it will cause a level of condition financial distress The experience experienced by the area will be even higher. Based on the description of the explanation above, it can be concluded that the area has a positive and significant effect on conditions financial distress an area.

**8. The effect of the degree of decentralization on financial distress conditions**

According to Mahmudi (2016) The degree of decentralization is a fiscal ratio that can be used to indicate the extent to which the central government gives power and responsibility to local governments for development. The ratio of the degree of fiscal decentralization shows how much the contribution of Regional Original Revenue (PAD) to total regional revenue, if the



contribution of Regional Original Revenue (PAD) is getting bigger, then the government's ability to implement decentralization will be higher.



**Figure 2. Conceptual Framework**

Based on the problem formulation, research objectives, and conceptual framework above, the hypotheses or temporary conjectures used in this study are as follows:

- H1 : The effectiveness ratio has a significant negative effect on the condition *financial distress* in Regency / City Regional Governments throughout the island of Sumatra.
- H2 : The efficiency ratio has a significant negative effect on the condition *financial distress* in Regency / City Regional Governments throughout the island of Sumatra.
- H3 : The growth ratio has a significant negative effect on the condition *financial distress* in Regency / City Regional Governments throughout the island of Sumatra.
- H4 : *Budgetary solvency ratio* significant negative effect on the condition *financial distress* in Regency / City Regional Governments throughout the island of Sumatra.
- H5 : Regional financial independence has a significant negative effect on conditions *financial distress* in Regency / City Regional Governments throughout the island of Sumatra.
- H6 : The number of inhabitants has a significant positive effect on the condition *financial distress* in Regency / City Regional Governments throughout the island of Sumatra.
- H7 : Area area has a significant positive effect on conditions *financial distress* in Regency / City Regional Governments throughout the island of Sumatra.
- H8 : The degree of decentralization has a significant negative effect on the conditions *financial distress* in Regency / City Regional Governments throughout the island of Sumatra.

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**2. IMPLEMENTATION METHOD**

**Object and Location of Research**

This research was conducted in all Regencies / Cities throughout the island of Sumatra, where the object used in this study was the data of the Regency / City budget realization report. This research is related to financial distress conditions using variables such as effectiveness ratio, efficiency ratio, growth ratio, regional financial independence, population, area, degree of decentralization, and budgetary solvency ratio. Where the purpose of this study is to determine how the effect of effectiveness ratio, efficiency ratio, growth ratio, regional financial independence, population, area, degree of decentralization, and budgetary solvency ratio on financial distress conditions.

**Variable Operational Definition**

The operationalization of all variables analyzed in this study can be seen in Table 2 below:

Table 2. Variable Operational Definition

Variable	Definisi	Indicator	Scale
Financial Distress (Y)	<p><i>Financial distress</i> occurs when local governments are unable to maintain services in order to meet the needs of the community. <i>Financial distress</i> is also characterized by uncontrolled expenditures made for routine expenditures, so that local governments suppress spending on capital expenditures or investment expenditures.</p> <p>(Dwitayanti et al. 2020)</p>	$KFD = \frac{TBM}{TBD}$ <p>Information:                      KFD: <i>Financial Distress</i>                      TBM: Total Capital Expenditure                      TBD: Total Regional Expenditure</p> <p>If capital expenditure is less than 30%, it indicates that the local government is in a state of <i>financial distress</i> (Presidential Decree No. 2 of 2015)</p> <p>Information:                      1: <i>Financial Distress</i>                      0: Not in <i>Financial Distress</i></p> <p>(Dwitayanti et al. 2020)</p>	Dummy
Effectiveness Ratio (X1)	<p>The effectiveness ratio is a ratio used to measure the level of effectiveness of local governments in making various programs for their regions and how effectively the local government budgets its budget for the various programs that have been made.</p> <p>(Pradana dan Sarjiyanto, 2023)</p>	$REF = \frac{RPD}{TPD}$ <p>Information:                      REF: Effectiveness Ratio                      RPD: Regional Revenue Realization                      TPD: Regional Revenue Target</p> <p>(Pradana dan Sarjiyanto, 2023)</p>	Ratio
Efficiency Ratio (X2)	<p>The efficiency ratio relates to operational activities carried out by local governments during a period,</p>	$RE = \frac{RBD}{RPD}$	Ratio



	where the process of local government operational activities can be said to be efficient if they use resources or funds as low as applied by local governments in regional spending.	Information: RE: Efficiency Ratio RBD: Regional Expenditure Realization RPD: Regional Revenue Realization	
	(Wulandari and Arza, 2020)	(Wulandari and Arza, 2020)	
Growth Ratio (X3)	Growth ratio is a ratio that measures how much the ability of local governments to maintain and be able to increase the success that has been achieved by local governments from the previous period to the next period.	$RP = \frac{PAD_t - PAD_{t-1}}{PAD_{t-1}}$	
	(Wulandari and Arza, 2020)	Information: RP: Growth Ratio PADt: Local Original Revenue for Current Period PADt-1: Local Original Revenue of Previous Period	Ratio
		(Wulandari and Arza, 2020)	
Budgetary Solvency Ratio (X4)	Budgetary solvency ratio or budget solvency ratio is a ratio used to indicate the ability of local governments to earn revenue in order to fund their operations during a financial reporting period.	$BSR = \frac{TPD}{TBD}$	
	(Dwitayanti et al. 2020)	Information: BSR: Budgetary Solvency Ratio TPD: Total Regional Revenue TBD: Total Regional Expenditure	Ratio
		(Dwitayanti et al. 2020)	
Regional Financial Independence (X5)	Regional financial independence or fiscal autonomy shows that local governments have the ability to be self-sufficient to carry out government activities, develop, and provide services to communities that have paid and collected taxes as a source of regional revenue.	$KKD = \frac{PAD}{TBD}$	
	(Halim, 2017)	Description:KKD: Regional Financial Independence PAD: Local Original Revenue TBD: Total Regional Expenditure	Ratio
		(Halim, 2017)	
Population (X6)	The number of inhabitants is a number of people or communities who live or live in an area, are obliged to comply with regional regulations, and have the right to get public services.	$JP = Ln(PP)$	
	(Wulandari and Arza, 2020)	Description:JP: Total Population Ln: Logaritma Natural PP: Resident Population	Ratio
		(Wulandari and Arza, 2020)	
Area (X7)	Area is a space or geographical unit	$LW = Ln(\text{Area})$	Ratio

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	along with several elements related and that have boundaries and systems and are determined based on administrative aspects and functional aspects.	Information: LW: Area Ln: <i>Logaritma Natural</i>
	(Wulandari and Arza, 2020)	(Wulandari and Arza, 2020)
Degree of Decentralization (X8)	The degree of decentralization describes how much the contribution of Regional Original Revenue (PAD), because Regional Original Revenue (PAD) is the level of power possessed by local governments when carrying out various activities for the regions they lead.	$DD = \frac{PAD}{TPD}$ Information: DD: Degree of Decentralization Ratio PAD: Local Original Revenue TPD: Total Regional Revenue
	(Elfiyana dan Arza, 2022)	(Elfiyana dan Arza, 2022)
Data processed (2023)		

**Data Analysis Methods**

This analysis technique no longer requires normality tests or other classical assumption tests on its independent variables. Then Gujarati (2019) also explains that logistic regression ignores heteroscedasticity which means the dependent variable does not require homoscedasticity for each independent variable. The formula for logistic regression in this study is as follows:  

$$\text{LogKFD} = \alpha + \beta_1\text{LogREF} + \beta_2\text{LogRE} + \beta_3\text{LogRP} + \beta_4\text{LogKKD} + \beta_5\text{LogJP} + \beta_6\text{LogLW} + \beta_7\text{LogDD} + \beta_8\text{LogBSR} + \varepsilon$$

Information:

- KFD :Condition Financial Distress
- $\alpha$  : Konstanta
- $\beta$  - Koefisien Regresi
- REF : Effectiveness Ratio
- RE : Efficiency Ratio
- RP : Growth Ratio
- KKD : Regional Financial Independence
- JP :Population
- LW : Area
- DD : Degree of Decentralization
- BSR : Budgetary Solvency Ratio





### 3. RESULTS AND DISCUSSION

#### Descriptive Statistics

**Table 3. Districts/Municipalities and Provinces Predicted to Experience Financial Distress**

	2019	Sum	Percentage
<i>Financial Distress</i>		148	96,10%
Healthy		6	3.9%
Provinces Experiencing the Most <i>Financial Distress</i>			North Sumatra
Provinces Experiencing the Least <i>Financial Distress</i>			South Sumatra
	2020	Sum	Percentage
<i>Financial Distress</i>		151	98,05%
Healthy		3	1,95%
Provinces Experiencing the Most <i>Financial Distress</i>			North Sumatra
Provinces Experiencing the Least <i>Financial Distress</i>			South Sumatra
	2021	Sum	Percentage
<i>Financial Distress</i>		152	98,70%
Healthy		2	1,3%
Provinces Experiencing the Most <i>Financial Distress</i>			North Sumatra
Provinces Experiencing the Least <i>Financial Distress</i>			South Sumatra

Source: Data processed (2024)

#### Regression Model Qualification Test

The feasibility of the regression model was assessed using Hosmer and Lemeshow's Goodness of Fit Test. This model is to test the null hypothesis that the empirical data is in accordance with the model or there is no difference between the model and the data so that the model can be said to be fit, where the basis for decision making is if the probability value of Hosmer and Lemeshow's goodness of fit test is greater than 0.05, then the null hypothesis cannot be rejected and means that the model is able to predict the value of its observations or it can be said that the model is acceptable because according to his observational data (Ghozali, 2018). The feasibility test results of the regression model using Hosmer and Lemeshow's Goodness of Fit in this study are as in the following table:

**Table 4. Regression Model Feasibility Test Results**

<i>H-L Statistic</i>	5,7451	<i>Prob. Chi-Sq(8)</i>	0,6758
<i>Andrews Statistic</i>		<i>Prob. Chi-Sq(10)</i>	0,0000
238,3412			

Source: Data processed (2024)

Based on the results of the feasibility test model using Hosmer and Lemeshow's Goodness of Fit in the table above shows that the probability value obtained is 0.6758 or greater than the significant level used which is 0.05 ( $0.6758 > 0.05$ ). So it can be concluded that the model is able to predict the value of its observations or it can be said that the model is acceptable because it is in accordance with its observation data.

#### Hypothesis Testing

Hypothesis testing in this study was carried out to determine whether the independent variable had a significant effect on the dependent variable. Hypothesis testing in this study was carried out using a partial regression test with a decision-making basis if the value probability smaller than the significant level used is 0.05, so it shows that the independent variable has a

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significant effect on the dependent variable (Ghozali, 2018). The partial test results in this study are as in the following table:

**Table 5. Partial Regression Test Results**

Variable	B	Std. Error	Z-Statistic	Prob.
(Constant)	160,417	53,155	3,018	0,003
Effectiveness Ratio	-11,493	3,588	3,203	0,001
Efficiency Ratio	-87,464	32,062	2,728	0,007
Growth Ratio	-1,429	1,226	1,166	0,244
Budgetary Solvency Ratio	-70,941	22,411	3,165	0,002
Regional Financial Independence	-62,142	196,660	3,316	0,008
Population	7,844	12,467	0,629	0,529
Area Size	10,173	2,835	3,825	0,007
Degrees of Decentralization	-18,532	188,992	4,098	0,009

Source: Data processed (2023)

Based on the results of the partial regression test in Table 5.4 above, the regression equation in this study is as follows:

$$\text{LogKFD} = 160,417 - 11,493\text{LogREF} - 87,464\text{LogRE} - 1,429\text{LogRP} - 70,941\text{LogBSR} - 62,142\text{LogKKD} + 7,844\text{LogJP} + 10,173\text{LogLW} - 18,532\text{LogDD}$$

Information:

- KFD :Condition Financial Distress
- REF : Effectiveness Ratio
- KING : Efficiency Ratio
- RP : Growth Ratio
- BSR : Budgetary Solvency Ratio
- NNE : Regional Financial Independence
- JP :Population
- LW : Area
- DD : Degree of Decentralization

Based on the results of the partial regression test in Table 5.4 above, the following results were obtained:

1. The effectiveness ratio variable obtained a probability value of 0.001 or smaller than the significant level used, which was 0.05 (0.001 < 0.05) and obtained a statistical value of 3.203 or greater than the table value of 1.975 (3.203 > 1.975) and had a coefficient value of -11.491. So it can be concluded that the efficiency ratio has a negative and significant effect on financial distress conditions. Therefore, the hypothesis stating that the efficiency ratio has a negative and significant effect on financial distress conditions in Regency / City Governments throughout the island of Sumatra is accepted (H1 is accepted).
2. The efficiency ratio variable obtained a probability value of 0.007 or smaller than the significant level used which was 0.05 (0.007 < 0.05) and obtained a statistical value of 2.728 or greater than the table value of 1.975 (2.728 > 1.975) and had a coefficient value of -87.464. So it can be concluded that the efficiency ratio has a negative and significant effect on financial distress conditions. Therefore, the hypothesis stating that the efficiency ratio has a negative and significant effect on financial distress conditions in Regional Governments of Districts / Municipalities throughout the island of Sumatra is accepted (H2 received).
3. The growth ratio variable obtained a probability value of 0.244 or greater than the significant level used which was 0.05 (0.244 > 0.05) and obtained a statistical value of 1.166 or smaller than the table value of 1.975 (0.166 < 1.975) and had a coefficient value of -1.429. So it can be concluded that the growth ratio has a negative insignificant effect on financial distress conditions. Therefore, the hypothesis that the growth ratio has a negative



- and significant effect on financial distress conditions in Regency / City Governments throughout the island of Sumatra is rejected (H3 is rejected).
4. The variable budgetary solvency ratio obtains a probability value of 0.002 or smaller than the significant level used which is 0.05 ( $0.002 < 0.05$ ) and obtains a statistical value of 3.165 or greater than the table value of 1.975 ( $3.165 > 1.975$ ) and has a coefficient value of -62.142. So it can be concluded that the budgetary solvency ratio has a negative and significant effect on financial distress conditions. Therefore, the hypothesis stating that the budgetary solvency ratio has a negative and significant effect on financial distress conditions in District/City Governments throughout the island of Sumatra is accepted (H4 received).
  5. The variable of regional financial independence obtained a probability value of 0.008 or smaller than the significant level used which was 0.05 ( $0.008 < 0.05$ ) and obtained a statistical value of 3.316 or greater than the table value of 1.975 ( $3.316 < 1.975$ ) and had a coefficient value of -62.142. So it can be concluded that financial independence has a negative and significant effect on financial distress conditions. Therefore, the hypothesis that financial independence has a negative and significant effect on financial distress conditions in Regency / City Governments throughout the island of Sumatra is accepted (H5 received).
  6. The population variable obtained a probability value of 0.529 or greater than the significant level used which was 0.05 ( $0.529 < 0.05$ ) and obtained a statistical value of 0.629 or smaller than the table value of 1.975 ( $0.629 < 1.975$ ) and had a coefficient value of 7.844. So it can be concluded that the population has a positive insignificant effect on financial distress conditions. Therefore, the hypothesis that the population has a positive and significant effect on financial distress conditions in Regency / City Governments throughout the island of Sumatra is rejected (H6 is rejected).
  7. The area variable obtained a probability value of 0.007 or smaller than the significant level used, which is 0.05 ( $0.007 < 0.05$ ) and obtained a statistical value of 3.825 or greater than the table value of 1.975 ( $3.825 > 1.975$ ) and has a coefficient value of 10.173. So it can be concluded that the area has a positive and significant effect on financial distress conditions. Therefore, the hypothesis that states that the area has a positive and significant effect on financial distress conditions in Regency / City Governments throughout the island of Sumatra is accepted (H7 received).
  8. The variable degree of decentralization obtained a probability value of 0.009 or smaller than the significant level used which is 0.05 ( $0.009 < 0.05$ ) and obtained a statistical value of 4.098 or greater than the table value of 1.975 ( $4.098 > 1.975$ ) and has a coefficient value of -18.532. So it can be concluded that the degree of decentralization has a negative and significant effect on financial distress conditions. Therefore, the hypothesis that states that the degree of decentralization has a negative and significant effect on financial distress conditions in Regional Governments of Districts / Municipalities throughout the island of Sumatra is accepted (H8 is accepted).

## DISCUSSION

### The effect of effectiveness ratio on financial distress conditions

Based on the results of the research that has been done, it was obtained that the effectiveness ratio variable obtained a probability value that was smaller than the significant level used and obtained a negative coefficient value. So it can be concluded that the effectiveness ratio has a negative and significant effect on financial distress conditions. Therefore, the hypothesis stating that the effectiveness ratio has a negative and significant effect on financial distress conditions in Regency / City Governments throughout the island of Sumatra is accepted (H1 received). The results of this study are in line with the results of previous research conducted by Pradana and Sarjiyanto (2023) and research conducted by Elfiyana and Arza (2022) which found that the effectiveness ratio had a negative and significant effect on the condition financial distress local government. Then the results of this research are also in line with the results of research

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previously conducted by Pinasti and Poerwati (2022) and research that has been conducted by Zakia and Setiawan (2021) which also found that the effectiveness ratio had a negative and significant effect on the condition financial distress local government.

**The effect of the efficiency ratio on financial distress conditions**

Based on the results of the research that has been done, it is obtained that the efficiency ratio variable obtains a probability value that is smaller than the significant level used and obtains a negative coefficient value. So it can be concluded that the efficiency ratio has a negative and significant effect on financial distress conditions. Therefore, the hypothesis stating that the efficiency ratio has a negative and significant effect on financial distress conditions in Regency / City Governments throughout the island of Sumatra is accepted (H2 received). The results of this study are in line with the results of previous research conducted by Pradan and Sarjiyanto (2023) and research conducted by Elfiyana and Arza (2022) which found that the efficiency ratio had a negative and significant effect on the financial distress condition of local governments. Then the results of this study are also in line with the results of research conducted by Pinasti and Poerwati (2022) and research previously conducted by Wulandari and Arza (2020) which also found that the efficiency ratio has a negative and significant effect on the financial distress condition of local governments.

**The effect of growth ratio on financial distress conditions**

Based on the results of the research that has been done, it is obtained that the growth ratio variable obtains a probability value that is greater than the significant level used and obtains a negative coefficient value. So it can be concluded that the growth ratio has a negative insignificant effect on financial distress conditions. Therefore, the hypothesis that states that the growth ratio has a negative and significant effect on financial distress conditions in Regency / City Governments throughout the island of Sumatra is rejected (H3 is rejected). The results of the study are in line with research previously conducted by Pradana and Sarjiyanto (2023) and research that has been conducted by Lailiyah and Desitama (2024) which found that the growth ratio had an insignificant negative effect on the condition financial distress local government. Then the results of this study are also in line with the results of research that has been done before by Syifa et al. (2021) as well as research that has been conducted by Pangku and Radjak (2021) which also found that the growth ratio had no effect on conditions financial distress.

**The effect of budgetary solvency ratio on financial distress**

Based on the results of the research that has been done, it was obtained that the variable budgetary solvency ratio obtained a probability value that was smaller than the significant level used and obtained a negative coefficient value. So it can be concluded that the budgetary solvency ratio has a negative and significant effect on financial distress conditions. Therefore, the hypothesis stating that the budgetary solvency ratio has a negative and significant effect on financial distress conditions in Regency / City Governments throughout the island of Sumatra is accepted (H4 is accepted). The results of this study are in line with the results of previous research conducted by Yanti (2018) and research conducted by Dwitayanti et al. (2020) which found that budgetary solvency ratio negative and significant effect on the condition financial local government. Then the results of this research are also in line with the results of research conducted by Pinasti and Poerwati (2022) and research conducted by Rahmatika and Imron (2022) who also found that budgetary solvency ratio negative and significant effect on the condition financial distress local government.

**The effect of regional financial independence on financial distress conditions**

Based on the results of the research that has been done, it was obtained that the variable of regional financial independence obtained a probability value that was smaller than the significant



level used and obtained a negative coefficient value. So it can be concluded that regional financial independence has a negative and significant effect on financial distress conditions. Therefore, the hypothesis stating that regional financial independence has a negative and significant effect on financial distress conditions in Regency / City Governments throughout the island of Sumatra is accepted (H5 received). The results of this study are in line with the results of previous research conducted by Shiddiqy et al. (2022) and research conducted by Elfiyana and Arza (2022) which found that regional financial independence has a negative and significant effect on financial distress conditions in local governments. Then the results of this study are also in line with the results of research previously conducted by Rahmatika and Imron (2022) and research conducted by Illahi et al. (2021) which also found that regional financial independence has a negative and significant effect on financial distress conditions in local governments.

### **The effect of population on financial distress**

Based on the results of the research that has been done, it is obtained that the variable number of population obtains a probability value that is greater than the significant level used and obtains a positive coefficient value. So it can be concluded that the population has a positive insignificant effect on financial distress conditions. Therefore, the hypothesis that the population has a positive and significant effect on financial distress conditions in Regency / City Governments throughout the island of Sumatra is accepted (H6 is rejected). The results of this study are in line with the results of research conducted by Pradana and Sarjiyanto (2023) and research previously conducted by Shiddiqy et al. (2022) which found that the number of population had a positive insignificant effect on conditions financial distress local government. Then the results of this study are also in line with the results of research that has been conducted by Pranoto et al. (2022) as well as research that has been conducted previously by Sari and Arza (2019) which also found that the number of population has a positive insignificant effect on conditions financial distress local government.

### **The influence of the region on financial distress conditions**

Based on the results of the research that has been done, it is obtained that the area variable obtains a probability value that is smaller than the significant level used and obtains a positive coefficient value. So it can be concluded that the area has a positive and significant effect on financial distress conditions. Therefore, the hypothesis stating that the area has a positive and significant effect on financial distress conditions in Regency / City Governments throughout the island of Sumatra is accepted (H7 received). The results of this study are in line with the results of research previously conducted by Shiddiqy et al. (2022) and research conducted by Zakia and Setiawan (2021) which found that the area has a positive and significant effect on conditions financial distress local government. Then the results of this study are also in line with the results of research that has been done before by Winarna et al. (2017) and research conducted by Wulandari and Arza (2020) which also found that area has a positive and significant effect on conditions financial distress local government.

### **The effect of the degree of decentralization on financial distress conditions**

Based on the results of the research that has been done, it was obtained that the variable degree of decentralization obtained a probability value that was smaller than the significant level used and obtained a negative coefficient value. So it can be concluded that the degree of decentralization has a negative and significant effect on financial distress conditions. Therefore, the hypothesis stating that the degree of decentralization has a negative and significant effect on financial distress conditions in Regency / City Governments throughout the island of Sumatra is accepted (H8 accepted). The results of this study are in line with the results of research previously conducted by Elfiyana and Arza (2022) and research conducted by Zakia and Setiawan (2021) which found that the degree of decentralization has a negative and significant effect on the

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financial distress conditions of local governments. Then the results of this study are also in line with the results of research previously conducted by Pranoto et al. (2022) and research conducted by Hustinati et al. (2016) which also found that the degree of decentralization has a negative and significant effect on the financial distress conditions of local governments.

**Hypothesis Proof**

**Table 6. Hypothesis Proof**

No	Hypothesis Statement	$\beta$	P	Information
1	H1: The effectiveness ratio has a negative and significant effect on <i>financial distress</i> conditions in Regency / City Governments throughout the island of Sumatra.	-11,493	0,001	Accepted Hypothesis
2	H2: The efficiency ratio has a negative and significant effect on <i>financial distress</i> conditions in Regency / City Governments throughout the island of Sumatra.	-87,464	0,007	Accepted Hypothesis
3	H3: The growth ratio has a negative and significant effect on <i>financial distress</i> conditions in Regency / City Governments throughout the island of Sumatra.	-1,429	0,244	Hypothesis Rejected
4	H4: <i>Budgetary Solvency Ratio</i> has a negative and significant effect on <i>financial distress conditions</i> in District/City Governments throughout the island of Sumatra.	-70,941	0,002	Accepted Hypothesis
5	H5: Regional financial independence has a negative and significant effect on <i>financial distress conditions</i> in Regency / City Governments throughout the island of Sumatra.	-62,142	0,008	Hypothesis accepted
6	H6: The population has a positive and significant effect on <i>financial distress</i> conditions in Regency / City Governments throughout the island of Sumatra.	7,844	0,529	Hypothesis Rejected
7	H7: The area has a positive and significant effect on <i>financial distress</i> conditions in Regency / City Governments throughout the island of Sumatra.	10,173	0,007	Accepted Hypothesis
8	H8: The degree of decentralization has a negative and significant effect on <i>financial distress</i> conditions in Regency / City Governments throughout the island of Sumatra.	-18,532	0,009	Accepted Hypothesis

Source: Data processed (2024)

**RESEARCH IMPLICATIONS**

**Theoretical Implications**

This study produces several theoretical implications, where the results in this study show that the variables of effectiveness ratio and growth ratio are two variables of financial ratios that have a significant effect on financial distress conditions in an area. Meanwhile, there are 4 variables characteristic of local governments consisting of regional financial independence, population, area, and degree of decentralization which have a significant effect on financial distress conditions. So that the contribution of this research can strengthen theories and concepts related to



regional financial management such as in terms of the relationship between financial ratios, characteristics of local governments, and financial distress conditions in local governments.

### Managerial Implications

The results of this study are also expected to be able to provide alternatives or solutions, especially related to the findings that the effectiveness ratio, growth ratio, regional financial independence, population, area, and degree of decentralization have a significant effect on the financial distress condition of local governments. So it shows that the better the local government in managing regional finances, the level of financial distress that will be felt by the regional government can be minimized in the future.

### 4. CONCLUSION

Based on the results of research that has been conducted on the effect of financial ratios and characteristics of local governments on financial distress conditions in Regency / City Governments throughout the island of Sumatra, where the conclusions obtained in this study are as follows:

1. The effectiveness ratio partially has a negative and significant effect on financial distress conditions in Regency / City Governments throughout the island of Sumatra.
2. The efficiency ratio partially has a negative and significant effect on financial distress conditions in Regency / City Governments throughout the island of Sumatra.
3. The partial growth ratio has a negative insignificant effect on financial distress conditions in Regency / City Governments throughout the island of Sumatra.
4. The budgetary solvency ratio partially has a negative and significant effect on financial distress conditions in District/City Governments throughout the island of Sumatra.
5. Regional financial independence partially has a negative and significant effect on financial distress conditions in District/City Governments throughout the island of Sumatra.
6. The number of partial population has a positive insignificant effect on financial distress conditions in Regency / City Governments throughout the island of Sumatra.
7. The size of the area partially has a positive and significant effect on financial distress conditions in Regency / City Governments throughout the island of Sumatra.
8. The degree of decentralization partially has a negative and significant effect on financial distress conditions in Regency / City Governments throughout the island of Sumatra.

### SUGGESTION

Based on the results of the study and the conclusions above, the advice that the author can give in this study is as follows:

1. For local governments  
For local governments, to pay more attention to factors that can increase the occurrence of financial distress conditions in regional financial management such as the increasing population and must be able to control the area of the area. This is because these two factors can significantly increase the possibility of financial distress in the future. There are several steps that can be taken by local governments in reducing the possibility of financial distress conditions in the future such as increasing effectiveness in budget use, then allocating budgets efficiently, trying to increase growth ratios and increasing Regional Original Revenue (PAD) to increase regional financial independence every year, and must be able to increase the degree of decentralization that is an indication of the power possessed by local governments in carrying out policies to manage and regulate their regions.
2. For academics  
For academics, this study only discusses the influence of several financial ratios and characteristics owned by local governments on financial distress conditions. Therefore,

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academics should further consider various variables in continuing various existing research in order to strengthen discussions about financial distress conditions in local governments.

3. For the next researcher

For future researchers, it is hoped that this study can be a guideline in conducting further research on the financial distress condition of local governments. This research itself was only conducted on the local government of districts / cities on the island of Sumatra only. Therefore, researchers can then develop research on financial distress conditions from local governments on other islands in Indonesia and use various other variables.

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