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Factors Affecting Financial Distress in Indonesian Districts and Cities in 2019-2020 with the Budget Solvency Ratio as a Moderation Variable

Aulia Salsabilla Mujiyanti[1], Andy Dwi Bayu Bawono[2]
[1]Faculty of Economic and Business, Universitas Muhammadiyah Surakarta, Indonesia
[2]Faculty of Economic and Business, Universitas Muhammadiyah Surakarta, Indonesia

Abstract: This study aims to determine the factors that influence financial distress in districts and cities throughout Indonesia. This research was conducted to determine the effect of the degree of decentralization and return on assets (ROA) on financial distress with the budget solvency ratio as a moderating variable in provinces and cities throughout Indonesia in 2019–2020. The method of determining the sample is purposive sampling, namely with a total sample of 507 districts or cities in Indonesia. This research uses secondary data from audited local government financial reports, namely the APBD realization report and the 2019-2020 balance sheet report. The data collection technique is by means of documentation. The analysis used is descriptive statistics, multiple linear regression analysis, and moderated regression analysis (MRA). The results of this study indicate that financial distress, as measured by the degree of decentralization and return on assets (ROA), has an effect (a statistically significant negative one). In addition, the budget solvency ratio also acts as a pure moderator so that it can moderate the degree of decentralization of financial distress, but it cannot moderate the return on assets (ROA) of financial distress because it acts as a predictor moderator here.

Keywords: Financial Distress, Degrees of Decentralization, Return on Asset (ROA), Budget Solvency Ratio

1. Introduction

Regional financial management has a significant impact on a region's fate because regions with good regional financial management can make the region stronger and more capable of developing greatness, and vice versa. Public services that are still poor indicate the government's inability to fulfill standardized services to the community due to insufficient local government funds for providing public infrastructure due to a lack of capital expenditure allocation, which is a condition of financial distress (Jones and Walker, 2007).

The degree of decentralization is calculated based on the comparison between the amount of PAD (regional original revenue) and total regional income. This ratio shows the degree of contribution of PAD to total regional income. The greater the contribution of PAD, the greater local governments' ability to implement decentralization (Mahmudi 2016: 140). ROA is a variable that shows financial performance, so it is used as a detection tool for financial distress situations. The budget solvency ratio, or budget solvency ratio, shows the ability of local governments to obtain revenue to fund their operations during a financial reporting period. The higher the value of this ratio, the more local government revenue is needed to finance local government spending.

2. Literature Review and Hypothesis

2.1 Agency Theory

This theory was developed by Jensen and Meckling (1976), which shows that agency theory is a contractual relationship between principal and agent, but this relationship is not always smooth and conflicts of interest often occur between the two. The agency relationship that occurs in the public sector is the agency relationship between the government and the legislature, which is seen in the preparation of the executive budget, which tends to propose a budget that is larger than what is currently happening (the maximum principle), while the executive revenue budget tends to propose a lower one (the minimum principle), so that when the realization is carried out, the target is more easily achieved.

In carrying out their duties and functions, executives tend to choose positions that are safe and comfortable but not concerned with the public. The legislature, as a principal in budgeting, should defend the interests of the people it represents by accommodating public needs in the budget. However, due to the opportunistic behavior of the legislature, it tends to propose a budget that increases its income so that it can fulfill its self-interest in the short term (Garamfalvi, 1997; Halim and Abdullah, 2012).

2.2 Resource Dependence Theory

The theory of resource dependency put forward by Emerson (1961) explains the relationship between the concepts of power and dependency in an organization. Dependence is a major part of power, where organizations that have power related to the surrounding environment related to the duties and authority of the organization can use a cooperative strategy to regulate organizational interdependence relationships. From the perspective built by Pfeffer and Salancil (1978), Syurmita (2014) explained that according to them, the organization is externally dependent on resources and resources can exert power over the organization. In order to make significant changes and achieve organizational goals, resources can wield power over the organization. The theory of resource dependence describes the level of dependence of local governments on the central government in managing and administering their respective regions.

The dependence of resources on the public sector illustrates the power of local governments to regulate and manage their respective regions and the level of dependence of these local governments on the central government in achieving organizational goals to provide services according to standards for the community.

2.3 Degrees of Decentralization and Financial Distress

The degree of decentralization is calculated based on the comparison between the amount of PAD (regional original revenue) and total regional income. This ratio shows the degree of contribution of PAD to total regional income. The higher the contribution of PAD, the greater the ability of local governments to implement decentralization (Mahmudi 2016: 140).

Therefore, the results of research by Fitrah Illahi, Rice Haryati, and Dica Lady Silvera (2021) reveal that the degree of decentralization has an effect on predicting financial distress status. This is different from Rahima Zakia's research, Mia Angelina Setiawan (2021), which reveals that the degree of decentralization has a negative effect on financial distress.

H1: The degree of decentralization has an effect on financial distress.

2.4 Return on Asset (ROA) and Financial Distress

ROA is a variable that shows financial performance, so it is used as a detection tool for financial distress situations. Mas'ud and Srengga (2012) revealed that ROA has a significant negative effect on the prediction of financial distress. That is, the smaller the ROA, the more likely the company will experience financial distress. This is different from the research of Ika Wulandari, Nugraeni, and Zaenal Wafa (2018), which reveals that ROA has an effect on financial distress.

H2: Financial Distress is influenced by Return on Assets (ROA).

2.5 The budget solvency ratio moderates the effect of the degree of decentralization on financial distress.

The budgetary solvency ratio is a comparison between the total local government revenue and the total expenditure that must be spent. The higher the value of this ratio, the better the ability of regional revenues to finance regional expenditures. According to Yanti (2018), the higher the value of the budgetary solvency ratio, the lower the possibility of local government financial distress. The degree of decentralization is calculated based on a comparison between total regional original revenue and total regional revenue. This ratio shows the degree of contribution of PAD to total regional revenue. The higher the contribution of PAD, the greater the ability of local governments to implement decentralization.

H3: The Budget Solvency Ratio moderates the relationship between the degree of decentralization and financial distress

2.6 The budget solvency ratio moderates the effect of return on assets (ROA) on financial distress.

The budgetary solvency ratio is a comparison between the total local government revenue and the total expenditure that must be spent. The higher the value of this ratio, the better the ability of regional revenues to finance regional expenditures. According to Yanti (2018), the higher the value of the budgetary solvency ratio, the lower the likelihood of financial distress in local governments. Return on assets (ROA) is a measurement of the company's overall ability to generate profits with the total assets available to the company. ROA is used to see the efficiency level of the company's operations as a whole. The higher this ratio, the better the company.

H4: The Budget Solvency Ratio moderates the relationship between return on assets (ROA) and financial distress.

3. Research Methodology

This study uses a quantitative approach by testing the hypothesis. The population in this study were provinces and cities throughout Indonesia, with a total sample of 507 provinces and cities. This study uses audited local government financial report data, namely the APBD realization report and balance sheet report for

2019–2020. Data related to the APBD realization report and balance sheet reports were obtained through publication from the website of the Republic of Indonesia Financial Audit Agency (BPK RI), namely www.bpk.go.id.

The linier regression model used in the test is as follows:
FD = α + β1DD + β2ROA + e

The moderated regression analysis equation is as follows:
FD = α + β1DD + β2ROA + β3M + β4DD*M + β5ROA*M + e

Information:
FD = Financial Distress
α = Regression Constant
β1-β5 = Regression Coefficient
DD = Degree of Decentralization
ROA = *Return on Asset* (ROA)
M = Budget Solvancy Ratio
e = Error Term

4. Result and Discussion

4.1 Descriptive Statistical Analysis

Variabel	N	*Minimum*	*Maximum*	*Mean*	Std. Deviasi
FD	1014	485769,00000	4782890,00000	1836532,7159763	616661,70907726
DD	1014	30747,00000	8346652,00000	1129797,9940828	909407,66925845
ROA	1014	-12646766,00000	27150843,00000	15998,0907298	994817,32649675
M	1014	7223637,00000	16254558,00000	10040428,4546351	555567,46127376
DD.M	1014	298382324439,00	84328069766092,00	11356202101786,4000	9198243464689,85000
ROA.M	1014	-11786956633410,00	323350249624200,00	366318670803,0802	11350346666895,39300
Valid N (*listwise*)	1014				

Source: Data Analysis Results, 2023

Based on the results of the descriptive analysis table above, the FD variable has the lowest (minimum) value of 485769.00000 and the highest (maximum) value of 4782890.00000, with an average (mean) of 1836532.7159763 and a standard deviation of 616661 and 70907726, respectively. The DD variable has the lowest (minimum) value of 30747.00000 and the highest (maximum) value of 8346652.00000, with an average (mean) of 1129797.9940828 and a standard deviation of 909407.66925845. The ROA variable has the lowest (minimum) value of -12646766.00000 and the highest (maximum) value of 27150843.00000, with an average (mean) of 15998.0907298 and a standard deviation of 994817.32649675. The M-size variable has the lowest (minimum) value of 7223637.00000 and the highest (maximum) value of 16254558.00000, with an average (mean) of 10040428.4546351 and a standard deviation of 555567.46127376. The DD.M variable has the lowest (minimum) value of 298382324439.00 and the highest (maximum) value of 84328069766092.00, with an average (mean) of 11356202101786.4000 and a standard deviation of 9198243464689.85000. The ROA.M variable has the lowest (minimum) value of -11786956633410.00 and the highest (maximum) value of 323350249624200.00, with an average (mean) of 366318670803.0802 and a standard deviation of 11350346666895.39300.

4.2 Discussion

Data tabulation was processed with the IBM SPSS Statistics 26 application, then produced descriptive statistics, fixed effect tables for regression equations, and t-test results, but previously the data had passed the classic assumption test results which included normality tests, multicollinearity tests, autocorrelation tests, and heteroscedasticity tests. In the normality test when testing the regression and the moderated regression analysis equation using CLT and N 1014 >30. So that the residual data is normally distributed, during the multicollinearity test there is no multicollinearity problem because the coefficient between the tolerance variables is more than 0,1 and the VIF value is less than 10. The autocorrelation test found no signs of autocorrelation because the Durbin Watson value lies between -2 to 2, which is 1,277. Likewise, in the heteroscedasticity problem because the Spearmans rho results have a significance value nor sig. (2-tailed) is greater than 0,05.

Table 2: Result of Linear Regression Analysis

Variable	P	T_{count}	T_{table}	Sig.	Conclusion	Information
DD	0,05	-4,849	1,962	0,000	Significant	H_1 Accepted
ROA	0,05	-2,147	1,962	0,032	Significant	H_2 Accep

Source: Data Analysis Results, 2023

Table 3: Result of Moderated Regression Analysis

Variable	P	T_{count}	T_{table}	Sig.	Conclusion	Information	Moderation Type
DD*M	0,05	-2,411	1,962	0,016	Significant	H3 Accepted	Pure Moderator
ROA*M	0,05	1,485	1,962	0,138	Not significant	H4 Rejected	Predictor Moderator

Source: Data Analysis Results, 2023

The effect of the degree of decentralization on financial distress is based on the test results with a calculated t value of -2.147 and a significance value of 0.000. The significance value is smaller than the specified error tolerance (0.000 to 0.05). This shows that H1 is accepted. The degree of decentralization of local government indicates the ability of local governments to manage their own regional government so that local governments that can organize, manage, and organize their own regional government do not have dependence on the central government. Local governments that do not have full dependence on the central government can rely on their own regional revenues to optimize their capital expenditures, which are used for standard public services. This research is in line with research conducted by Shurmita (2014), Fitrah Illahi, Rice Haryati, Dica Lady Silvera (2021), Annisa Haryanti, Sandrayati, and Yevi Dwitayanti (2022).

The effect of return on assets (ROA) on financial distress is based on the test results and the calculated t value of -4.849 with a significance value of 0.032. The significance value is smaller than the specified error tolerance (0.032 to 0.05). This shows that H2 is accepted. Return on Assets (ROA) affects financial distress. If a local government has a high surplus, then it has a high financial performance ratio. However, this high difference (surplus) does not necessarily indicate that the local government has sufficient funds to finance development in the following period. The surplus generated by the regional government must be returned to the state treasury, and the regional government concerned is only allowed to submit a budget to the central government in the amount of the previous year's realization. For this reason, local governments that have a high surplus have a high probability of experiencing financial distress, making them unable to provide services to the public in accordance with the minimum standards of service quality that have been set. This research is in line with research conducted by Ika Wulandari, Nugraeni, and Zaenal Wafa (2018).

The variable degree of decentralization and the budget solvency ratio obtained a t-count of -2.411 with a significance value of 0.016. The significance value is smaller than the specified error tolerance (0.016 to 0.05). So it can be concluded that the budget solvency ratio has a significant effect on the relationship. This shows that H3 is accepted, meaning that the budget solvency ratio can moderate the relationship between the degree of decentralization and financial distress, and the Budget solvency ratio acts as a pure moderator.

The Return on Assets (ROA) variable with the Budget Solvency Ratio obtained a t-count of 1.485 with a significance value of 0.138. The significance value is greater than the specified error tolerance (0.138 > 0.05). So it can be concluded that the budget solvency ratio has no significant effect on the relationship between the degree of decentralization and financial distress. This demonstrates that H4 is rejected, implying that the Budget Solvency Ratio cannot moderate the relationship between Return on Assets (ROA) and Financial Distress, and that the Budget Solvency Ratio functions as a predictor moderator variable.

5. Conclution

5.1 Conclution

This study aims to examine the effect of the degree of decentralization and return on assets (ROA) on financial distress with the budget solvency ratio as a moderating variable in provinces and cities throughout Indonesia in 2019–2020. Based on the test results and discussion obtained in the previous chapter, the following conclusions were reached:

1. The degree of decentralization has an effect (statistically significantly negative) on financial distress, so H1 in this study is accepted.
2. Return on assets (ROA) has an effect (statistically significantly negative) on financial distress, so that H2 in this study is accepted.
3. The degree of decentralization is moderated by the budget solvency ratio, which affects financial distress, so that H3 in this study is accepted. that H2 in this study is accepted.

4. Return on Assets (ROA), moderated by the Budget Solvency Ratio, has no effect on financial distress, so H4 in this study is rejected.

5.2 Limitations

This research still has limitations, so it needs to be considered by future researchers. The limitations of the existing research are as follows:

1. The research period was only two years, namely 2019 and 2020.
2. The selection of variables in this study uses only two independent variables, namely the degree of decentralization and the return on assets (ROA).
3. The selection of variables in this study was carried out based on previous studies.

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