**THE EFFECTS OF FINANCIAL RATIO, LOCAL SIZE AND LOCAL STATUS ON FINANCIAL DISTRESS**

**Novica Indriaty**

*Faculty of Economics and Business, Sebelas Maret University*

[novicaindri@gmail.com](mailto:novicaindri@gmail.com)

**Doddy Setiawan**

*Faculty of Economics and Business, Sebelas Maret University*

[Doddy.setiawan@gmail.com](mailto:Doddy.setiawan@gmail.com)

Yuwita Ariessa Pravasanti, SE., M.Si

STIE AAS Surakarta

[Yuwita.akuntansi@gmail.com](mailto:Yuwita.akuntansi@gmail.com)

**ABSTRACT**

This study is aimed to examine the effects of financial ratio empirically, local size and local status on financial distress. The status of financial distress is the condition of the inability of the local government to repay the loan principal and the loan interest. The population of this study include local governments in Indonesia that publish Report on Local Government Finances in 2008-2014. Samples were selected based on purposive sampling method and obtained 641 as research observation. With logistic regression, this study found that financial ratio included current ratio (CR), debt to equity ratio (D/E), operating revenues to total revenues ratio (OR/TR), return on assets ratio (ROA), return on equity ratio (ROE), and macro-economic variables were local size and local status have a significant effect on financial distress.

**Keywords** : Financial Distress, Financial Ratio, Local Size, Local Status, Logistic Regression, Report on Local Government Finances

**INTRODUCTION**

After the economic crisis that hit Indonesia, regional autonomy was born as an effort to improve people's welfare. Regional autonomy is a good opportunity for local governments to explore its ability to implement the rights of local authority and freedom to be creative in developing regions by referring to the Law. However, the successes of the implementation of regional autonomy need to be questioned. Reporting from the UNIKOM scientific magazine, there are eight problems found in the practice of implementing regional autonomy. Two of these problems are financial balancing and Local Government Budget (Surtikanti, 2013). Wasteful behavior that deplete local governments that more than a half of budget only to finance the employees expenditure will deliver them to the brink of bankruptcy. The results of the FITRA analysis on the Local Government Budget in 2011, there were 124 regions where the expenditure burden of employees exceeded 60% and 16 of them reached 70%. Whereas, in 2012 there were 291 regions that projected employee expenditure of more than 50 percent. From the 291 regions, there are 11 local governments that have employee expenditure of 70 percent and above with the highest value of 76.7 percent as occupied by the City of Langsa (source: Summary of Local Government Budget in 2012, Directorate-General of Regional Fiscal Balance). Employees’ expenditure that absorbs too much regional budget will automatically reduce capital expenditure. A spokesman for the Ministry of Home Affairs said that capital expenditure, especially for infrastructure nationally, had only reached 21.70 percent and had not been in line with the national target. This condition shows that the function of the local government to provide quality public service fulfillment as mandated by regional autonomy cannot be realized yet.

According to Cohen et al (2012) local governments are said to have good financial performance if they can fulfill financial obligations and service obligations to the community, now and in the future. However, when the local government is unable to provide public services to the community according to establish quality standards, the government is indicated to experience financial distress (Jones and Walker, 2007; ACIR, 1985).

Some of the previous empirical researcher have developed financial distress indicators. Financial ratio is the most widely used analytical techniques in predicting financial distress as done by Beaver (1966), Plat and Plat (2002), and Amendola et. al (2015). An accurate financial distress prediction models had an important influence on various corporate stakeholders in the decision-making process and could be used as an early warning regarding the financial condition of corporate distress, so anticipatory actions can be taken against conditions that lead to bankruptcy (Xie, Luo, and Yu 2011; Almilia and Kristijadi 2003).

In the public sector, financial distress is a serious problem because if it is not addressed it will lead to regional bankruptcy. This study will develop financial distress prediction models using financial ratio and non-financial factor as an indicators that has been done by previous researchers (John and Walker 2007; Cohen, 2008; Sutaryo, 2009; Trussel and Patrick, 2009; Cohen et al, 2012)

For the financial sustainability of the local government, if the budget for Local Government Budget is limited, the local government can make regional loans to cover financing expenses so that services to the community increase. Regional loans are regulated in Government Regulation No. 30 of 2011.Based on these regulations, regional loans can be submitted to the central government if the local government can meet the stipulated requirements, namely the value of a Debt Service Coverage Ratio (DSCR) of at least 2.5. If an area has a DSCR value smaller than 2.5, it is not permitted to make a regional loan because it is feared that it will experience difficulties in repaying the loan principal and interest. The condition of this difficulty is used as a condition of financial distress in the local government in the study.

Some of the differences in this study are those of Cohen (2008), Sutaryo (2009), Trussel and Patrick (2009), Cohen et al (2012), are :

1. This study predicts financial distress in all local governments in Indonesia with a span of 7 years starting in 2008-2014.
2. The independent variable is not only focus on financial ratios, but also on non-financial factors such as local government size and local government status.
3. The Data analysis is logistic regression with the help of computer software for Eviews version 9 statistics.

**LITERATURE REVIEW AND DEVELOPMENT OF HYPOTHESIS**

**Literature Review**

**Financial Distress**

Financial distress is a condition that occurs before bankruptcy. In the private sector this condition has long been a concern of the government and investment groups. Therefore, financial distress models need to be developed so that actions can be taken to anticipate conditions that lead to bankruptcy. Xie et. al (2011), Habib et. al (2013), Platt and Platt (2002) define financial distress as a condition in which a company has difficulty to pay financial obligations to creditors, is in trouble with operational activities and decreases financial performance significantly and continuously so that it can lead to bankruptcy and financial losses for investors and creditors. In the public sector, Jones and Walker (2007) define financial distress as the inability of local governments to provide services to the public in accordance with established quality standards. This is due to the unavailability of funds to be invested in the infrastructure used in service provision so that this condition indicates that the government is experiencing financial difficulties.

Meanwhile, Sutaryo (2009) defines financial distress as the inability of local governments to repay both loan principal and loan interest. This definition refers to Government Regulation No.30 of 2011 concerning regional loans. The indicated ability is stated in the Debt Service Coverage Ratio (DSCR). Government Regulation No. 30 of 2011 in articles 15 and 16 states that local governments can make regional loans if they have a DSCR level of at least 2.5 (two point five). For local governments that are not able to reach the DSCR level, they are not allowed to make regional loans on the grounds to avoid difficulties in repaying both the principal and the interest of loan. If the local government experiences such difficulties (has a DSCR level of <2.5), it can be stated in the status of financial distress.

**Financial Ratio Analysis**

Ratio analysis is another way to present information from financial statements by expressing relationships between selected financial statement data. This relationship is expressed in terms of percentage, level, or simple proportion (Kieso et al. 2008: 222). Hanafi and Halim (2016: 74) classify ratio analysis into five categories, namely: liquidity ratio, activity ratio, solvency ratio, profitability ratio, and market ratio. The fifth ratio is to see the prospects and risks of the company in the future. Prospect factors in these ratios will affect investor expectations of the company in the future. In the public sector, the use of ratio analysis has not been done so much that in theory there is no unanimous agreement regarding the name and rules of measurement.

**Development of Hypotheses**

In predicting financial distress, the indicators that are often used are financial ratios of financial statements such as liquidity ratio, capital structure ratio, performance ratio, profitability ratio, and growth ratio (Cohen, 2008; Sutaryo, 2009; Trussel and Patrick, 2009; Cohen et al , 2012; Liao and Liu, 2014). Debt is often associated with financial distress. In the public sector, government debt is the most important part of funding (Sutaryo et al, 2012). Based on government regulation No. 30 of 2011 concerning regional loans, local governments can make loans to the central government or third parties. Sutaryo (2009) states that if debt is carried out at the central government, the interest and terms of return are carried out flexibly in the sense that it can be negotiated. However, if loans are made to third parties (such as banks), the treatment of government debt is the same as loans to the private sector.

One of the indicator of the occurrence of financial distress is a large amount of debt (Pasaribu, 2008). Debt can be used as a determination of liquidity ratios and capital structure ratios. Current ratio (CR) is a liquidity ratio that measures the ability of an entity to pay short-term liabilities. When the current ratio is low, it will have an impact on cash flow so that to cover regional operational costs, a larger number of short-term loans is needed and will affect financial distress. Cohen (2008) assessed the current ratio as a ratio that measures the ability of local governments to maintain financial position. This is because the current ratio that’s very high and very low indicates financial operational problems. Almilia and Kristijadi (2003) prove that liquidity ratios have a significant effect in determining a company's financial distress.

The capital structure ratio expressed by the debt to equity ratio (D/E) in government entities is used to measure the ratio of the amount of debt to equity funds. This ratio shows how much equity (net worth) of local government is in fulfilling local government obligations in the form of short-term debt and long-term debt. The higher the debt that is owned, the higher the rate of debt repayment and the risk to the financial condition of the local government so that it can affect financial distress.

Research in the public sector, especially government entities that use debt proportions, was conducted by Cohen (2008) with the result that high and low liquidity is a good indicator of financial management and influences the financial performance of local governments in Greece. Sutaryo et al. (2009, 2012) use the current ratio, current liquidity government wealth (CLGW), current liquidity fund (CLFUND), liquidity (LQ), current liquidity (CL), long term debt to total assets (LTDA) and debt to revenue (DTR ) as a debt ratio in predicting financial distress. The results show that information in the ratio of government debt except CLFUND can be used as a tool to predict financial distress.

In addition, the financial condition of local governments can also be influenced by the ratio of financial performance (performance ratio). This ratio measures the efficiency of an entity which is achieving maximum output with limited use of inputs (Sutaryo et al, 2012). Cohen (2008) uses the operating revenue to total revenue ratio (OR / TR) which describes the efficiency of government entities. The OR / TR ratio is a comparison between the amount of operating income and the total regional income. A high OR / TR ratio indicates that local governments are able to generate high operating income so that they can increase the amount of regional income without having to depend on the central government budget in the form of subsidies or transfer funds. Thus, the local government can be stated in an efficient condition and affect the financial condition of the local government.

In the public sector, profit is not the main goal. However, some studies using profitability ratios measuring the financial condition of local government as did Cohen (2008) and Sutaryo el al (2012). Profitability ratio is a comparison of the use of profits with entity resources (assets or equity). In non-profit oriented government organizations, the profitability ratio is adjusted by replacing profit (loss) with a surplus (deficit) on the government budget. A high surplus deficit indicates that the performance of the local government budget is not good enough. When the surplus value is high, the local government is considered unsuccessful in implementing the work program so that the established budget is not absorbed properly. While the budget deficit shows that regional income cannot cover the amount of regional expenditure. This certainly will affect the availability of government funds and the ability of local governments to pay the principal and interest of loans (Sutaryo et al, 2012).

Several studies have proven the ability of profitability ratios in predicting financial distress of local governments. Cohen (2008) uses return on equity (ROE), return on assets (ROA) and profit margin in its influence on the financial performance of local governments in Greece. Meanwhile, Liaou and Liu (2014) use return on assets (ROA) in controlling the relationship between local fiscal distress and investment efficiency of Local Government Owned Enterprises in China. This study uses return on assets and return on equity as a proxy for profitability ratios as used in the research of Cohen (2008) and Sutaryo (2009).

The last factor that can affect financial conditions is the growth ratio. This ratio measures how much the ability of local governments to maintain and increase the success they have achieved from the period to the next. Knowledgeable growth for each of these components of income and expenditure of resources can be used to evaluate the potential that need attention (Halim, 2007: 241). Trussel and Patrick (2009) calculate changes in total income from year to year (GROWTH) as a measure of changes in entity resources. The results showed that the GROWTH ratio had a significant effect on fiscal distress.

This study does not only use financial ratios as variables that influence financial distress. However, it also considers macro-economic factors, namely the local size and local status. The local size is generally proxied by the population. Cohen (2008) proves that the population influences the financial performance of local governments. This research predicts that regional governments that have large populations will experience financial distress.

The local status in this study is the area resulting from expansion and non-expansion. According to Law No. 32 of 2004, regional expansion basically aims to improve public services in order to accelerate the realization of public welfare. However, the expansion process often lead to regional instability and lack of attention to aspects of the region's ability to be expanded (Surtikanti, 2013). When viewed from the side of regional finance, new regions formed through local government policies show relatively less optimal performance compared to control areas. This is due to a number of problems such as greater fiscal dependence in the newly created regions, low income optimization and economic contributions, and low share of capital expenditure allocations from local governments which have an effect on financial distress (Madona, 2014).

On the basis of the above explanation, the research hypothesis can be formulated as follows:

1. The financial ratios has an effect on predicting inancial distress of local governments in Indonesia
2. The local size has an effect on predicting financial distress of local governments in Indonesia
3. The local status has an effect on predicting financial distress of local governments in Indonesia

**RESEARCH METHODS**

**Samples and Data**

The sample used in this study is the local government in Indonesia, while the sampling technique is done by purposive sampling method, namely the sample is selected based on certain criteria as follows:

1. The Report on Local Government Finances of Indonesia issued in 2008-2014 and published on the Audit Board of the Republic of Indonesia(BPK RI) website, is [www.bpk.go.id](http://www.bpk.go.id)
2. The Report on Local Government Finances of Indonesia for 2008-2014 that report long-term debt and provide other financial information needed for measurement of research variables.

**Research Model**

The purpose of this study was to determine the effect of financial ratios, local size and local status on financial distress. To prove the hypotheses proposed in this study, the regression models in this study are as follows:

Notes :

|  |  |  |
| --- | --- | --- |
|  | = | The probability of financial distress of local government |
|  | = | The financial ratio, local size, and local status |
|  | = | Regression coefficient |
| E | = | Error |

**Research Variables and Variable Measurement**

The following is explained about the operational definition and measurement of variables used in this study as follows:

**Dependent Variable**

In this study, the dependent variable is the probability of non-financial distress of local governments and financial distress of local governments indicated by the Debt Service Coverage Ratio (DSCR) as stipulated in government regulation No. 30 of 2011 concerning regional loans. Based on these regulations, DSCR can be written with the following formulas and conditions:

Notes :

|  |  |  |
| --- | --- | --- |
| DSCR | = | *Debt Service Coverage Ratio* |
| PAD | = | Local Own-source Revenue |
| BD | = | Regional portion of land and building tax, fees for acquiring land and building rights, and receipt of natural resources, as well as other parts of the region such as from personal income tax. |
| DAU | = | General Allocation Fund |
| BW | = | Mandatory expenditure is employee expenditure and expenditure of ocal legislative assembly (DPRD) members |
| P | = | Loan installments that are due in the relevant fiscal year |
| B | = | Loan interest expense |
| BL | = | Other costs include administrative fees, commitments, provisions, insurance and fines related to regional loans |

Provisions for the feasibility of regional lending are Debt Service Coverage Ratio (DSCR) of at least 2.5 (two point five). For local governments that have DSCR value <2.5 (two point five), then it is declared experiencing financial distress and symbolized by number 0, while for local governments that have DSCR> 2.5 (two point five) stated in non-financial distress conditions and symbolized by number 1.

**Independent Variables**

The independent variable in this study consisted of financial and non-financial factors. Financial factors are represented by financial ratios adjusted to the data and information available in the Report on Local Government Finances. The financial ratios used are taken from the research of Cohen (2008), Trussel and Patrick (2009) and Cohen et al (2012) as follows:

1. *Liquidity Ratio*
2. *Current ratio* (CR)
3. *Capital Structure Ratio*
4. *Debt to equity* (D/E)
5. *Performance Ratio*
6. *Operating revenues to total revenues ratio* (OR/TR)
7. *Profitability Ratio*
8. *Return on assets ratio* (ROA)
9. *Return on equity ratio* (ROE)
10. *Growth Ratio*
11. *Revenue growth (GROWTH)*

Non-financial factors are represented by two macro-economic factors, are the local size and local status. Local size is measured using the population of a local government (POP). Whereas the local status (STATUS) which is the local government resulting from the expansion and non-expansion is measured using the dummy variable, for the local government resulting from the expansion are symbolized by number 1 and for the local government of non-expansion symbolized by the number 0.

**RESEARCH RESULTS AND DISCUSSION**

**Sample Selection Results**

The population in this study is local government in Indonesia. The research sample was determined using a purposive sampling method with several provisions discussed earlier. After identification of 3563 Report on Local Government Finances (LKPD) in 2008-2014 issued by the Audit Board of the Republic of Indonesia, there are 2114 LKPDs that do not present long-term obligations and 808 LKPDs that do not provide complete data so that the results obtained are 641 LKPDs as the number of observations in the study.

**Descriptive statistics**

Descriptive statistics provide an overview of the research data used in the study. The description in question includes the minimum value, maximum value, mean and standard deviation. The full description of this research data is presented in the following table.

**Table 1**

**Descriptive Statistics**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ***Variabel*** | ***N*** | ***Minimum*** | ***Maximum*** | ***Mean*** | ***Std. Deviation*** |
| CR | 641 | -260,07 | 12026,27 | 120,79 | 599,14 |
| D/E | 641 | 3,19E-06 | 0,4816 | 0,0155 | 0,0273 |
| OR/TR | 641 | 0,0008 | 5,1268 | 0,1042 | 0,2127 |
| ROA | 641 | -0,1278 | 0,3163 | 0,0088 | 0,0287 |
| ROE | 641 | -0,1650 | 1,610 | 0,0117 | 0,0720 |
| GROWTH | 641 | -0,5831 | 27,54 | 0,2140 | 1,3151 |
| POP | 641 | 58068 | 3415700 | 730072,4 | 596671,6 |
| STATUS | 641 | 0 | 1 | 0,1342 | 0,3411 |
| Valid N  (listwise) | 641 |  |  |  |  |

Source: Eviews data processing, 2019

**Data Analysis**

Data analysis in this study used logistic regression with the help of computer software for Eviews version 9. This regression test overrides the assumptions of classical normality and assumptions such as heterocedasticity, autocorrelation and multicollinearity. The results obtained from the regression test indicate that the likelihood value based on the LR statistic value can be presented in the following table.

**Table 2  
Test of Likelihood Value**

|  |  |  |
| --- | --- | --- |
| **Test of function (s)** | **LR Statistic** | **Prob.** |
| 1 | 77,142 | 0,000 |

Source: Eviews data processing, 2019

The likelihood value indicates whether the addition of independent variables in the regression model can improve the regression model in predicting the dependent variable of the study. From table 2, the LR statistic value is 77.142 and the probability value is 0.000 which is smaller than the research significance level of 5%, thus indicating that the addition of independent variables in the form of CR, D / E, OR / TR, ROA, ROE, GROWTH, POP and STATUS can be improve the fit model in the logistic regression model of this study.

In addition, the results of the logistic regression analysis also indicated the fit of the tested model based on the values of Hosmer and Lemeshow's Goodness of Fit Test. If the HL Goodness-of-fit statistic value is greater than the research significance level of 5%, then the null hypothesis cannot be rejected and means the model is able to predict its observations or it can be said that the model is acceptable because it matches the observational data (Ghozali and Ratmono, 2013: 344). The HL statistics value is 9.3779 with a significance probability of 0.3114 whose value is above 5%. Thus it can be concluded that the regression model used in this study is fit (fit) to be used. The full value of Hosmer and Lemeshow's Goodness of Fit Test can be seen in the following table.

**Table 3  
Test the Hosmer and Lemeshow's Value Goodness of Fit Test**

|  |  |  |  |
| --- | --- | --- | --- |
| **Test of function (s)** | **HL Statistic** | **df** | **Prob.** |
| 1 | 9,3779 | 8 | 0,3114 |

Source: Eviews data processing, 2019

The results of the regression analysis also show the value of McFadden R-squared which is an analogous measure with R2 in the regression of Ordinary Least Square (Ghozali and Ratmono, 2013: 344). McFadden R-squared value explains how much the independent variable is able to explain the influence on the dependent variable. The results of the McFadden R-squared value test of this study were 0.403 which means that the variability of the dependent variable in this case financial distress and non financial distress can be explained by the independent variables CR, D / E, OR / TR, ROA, ROE, GROWTH, POP and STATUS of 40.3%. While the remaining 59.7% is explained by other variables not included in this study.

To strengthen the results of the analysis, it was also used percently correctly predicted. The greater the value of the predicted percentage, the better the model (Ghozali and Ratmono, 2013: 344). Complete precently correctly predicted values can be seen in the following table.

**Table 4**

***Expectation-Prediction Evaluation for Binary Specification***

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Estimated Equation** | | **Total** |
| **Dep = 0** | **Dep = 1** |
| P (Dep=1)<=C  P (Dep=1)>C  Total  Correct  %Correct  %Incorrect | 5  17  22  5  22,73  77,27 | 3  616  619  616  99,52  0,48 | 8  633  641  621  96,88  3,12 |
| *0 = Financial Distress, 1 = Non Financial Distress*  Source: Eviews data processing, 2019 | | | |

The results of testing this study in the table above shows that overall prediction accuracy reaches 96.88% so it can be concluded that the model is quite good.

**Table 5  
Logistic Regression Test Results**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
|  |  |  |  |  |
| **Variable** | **Coefficient** | **Std. Error** | **z-Statistic** | **Prob.** |
|  |  |  |  |  |
|  |  |  |  |  |
| CR | 0.0233 | 0.0098 | 2.3763 | 0.0175\*\* |
| D/E | -41.557 | 9.4313 | -4.4063 | 0.0000\* |
| OR/TR | 18.2602 | 8.0863 | 2.2582 | 0.0239\*\* |
| ROA | -43.6406 | 9.3914 | -4.6469 | 0.0000\* |
| ROE | 11.6780 | 4.8340 | 2.4158 | 0.0157\*\* |
| GROWTH | 3.8028 | 2.4127 | 1.5761 | 0.1150 |
| POP | 1.54E-06 | 8.89E-07 | 1.7274 | 0.0841\*\* |
| STATUS | 1.7123 | 0.8588 | 1.9938 | 0.0462\*\* |
|  |  |  |  |  |
|  |  |  |  |  |
| \*significant at α = 1%, \*\* significant at α = 5%, \*\*\* significant at α = 10%  CR : *current ratio*, D/E : *debt to equity ratio*, OR/TR : *operating revenues to total revenues ratio*, ROA : *return on assets ratio*, ROE : *return on equity ratio*, GROWTH *: revenue growth ratio*, POP : population, STATUS : regional expansion  Source: Eviews data processing, 2019 | | | | |

**DISCUSSION  
Effect of Financial Ratio on Financial Distress**

The test results as presented in table 5 show that of the 6 ratios, it is proven that 5 ratios are CR, D / E, OR / TR, ROA, and ROE has a probability value smaller than the research significance level of 1%, 5%, and 10% so that it can be said that these variables affect the financial distress of local governments in Indonesia. The status of financial distress is the inability of the local government to repay loan principal and loan interest. The results of this study support the empirical evidence of previous studies (Trussel and Patrick, 2009; Sutaryo, 2009; Sutaryo et al., 2012) that financial ratios compiled based on information from report on local government finances can be used to predict financial distress. The prediction of financial distress of a local government is very beneficial for the sustainability of regional finance in the future. The earlier knowing that local governments are in the status of financial distress, the better for local management because they can take preventive measures quickly and right before the failure.

**Effect of Local Size on Financial Distress**

Population is usually used as a proxy for local size. In table 5 shows that the POP variable has a significance value of 0.0841 which is smaller than the research significance level of 1% so that the population influences the financial distress. Positive coefficient values indicate that when the population of a local government increases, the problem of bureaucracy in government becomes more intense and operational implementation and management of resources become less efficient so that they cannot meet public service needs adequately (Cohen, 2008). The results of this study are in line with Jones and Walker (2007) that local governments that are unable to provide services to the public in accordance with established quality standards will experience financial distress.

**Effect of Local Status on Financial Distress**

The local status is illustrated by the phenomenon of regional expansion in Indonesia. In table 5 shows that the STATUS variable has a significance value of 0.0462 which is smaller than the research significance level of 5% so that the local status affects financial distress. The results of this study are in line with Syurmita (2014) that new autonomous regions that experience expansion tend to experience financial distress. This is because the capacity of regions that are divided in managing local finances is not optimal (Madona, 2014).

**CONCLUSION**

This study aims to find out and analyze whether financial ratios, regional size and regional status influence the financial distress of local governments. The sample in this study is the district / city local government in Indonesia that publishes report on local government finances in 2008-2014 at the Audit Board of the Republic of Indonesia webiste. In this study of 6 financial ratios for LKPDs, it was proven that 5 ratios could be used to predict financial distress, are CR, D/E, OR/TR, ROA and ROE. Meanwhile, for two macro-economic factors, are the local size (population) and the local status (regional expansion) also affect financial distress of local government.

**LIMITATIONS**

The author realizes that this study has several limitations that might influence the results of the study. The limitations are as follows:

1. The value of McFadden R-squared in this study is 0.403 which means that the dependent variable is explained by the independent variable only 40.3%. While the remaining 59.3% is explained by other variables not included in the study.
2. Does not issue a Report on Local Government Finances with adverse and disclamer opinions from the research sample because it has poor quality financial information.
3. Does not distinguish samples based on certain criteria such as the geographical location of local governments that can influence the results of research.

**RECOMMENDATION**

To be able to develop the results of further research, the next study is suggested to be able to complement the limitations of this study, are :

1. Adding other independent variables that are considered to have the potential to influence research results such as Local Gross Domestic Product (PDB) or political parties.
2. Only use Report on Local Government Finances with opinions that guarantee the quality of information provided
3. Distinguish samples based on the geographical location of the local government

**REFERENCES**

ACIR. 1985. The States and Distressed Communities: The Final Report. Washington D.C

Almilia, Luciana Spica dan Kristijadi. 2003. Analisis Rasio Keuangan untuk Memprediksi Kondisi Financial Distress Perusahaan Manufaktur yang Terdaftar di Bursa Efek Jakarta. *JAAI*. Vol. 7, No. 2 page 63-77

Amendola, Alessandra, Marialuisa Restaino, dan Luca Sensini. 2015. An Analysis of the Determinants of Financial Distress in Italy: A Competing Risk Approach. *International Review of Economic and Finance*. Vol. 37, page 33-41

Beaver, William H. 1966. Financial Ratios as Predictors of Failure. *Journal of Accounting Research*. Page 71-111

Cohen, Sandra. 2008. Identifying the Moderator Factors of Financial Performance in Greek Municipalities. *Financial Accountability & Management*. 24 (3), 267-4424

\_\_\_\_\_\_\_\_\_\_\_\_\_\_, Michael Doumpos, Evi Neofytou dan Constantin Zoppounidis. 2012. Assesing Financial Distess Where Banckruptcy is Not An Option: An Alternative Approach for Local Municipalities. *European Journal of Operational Research*. page 270-279

Ghozali, Imam dan Dwi Ratmono. 2013. *Analisis Multivariate dan Ekonometirka : Teori, Konsep dan Aplikasi dengan EVIEWS 8*. Semarang: Badan Penerbit Universitas Diponegoro

Habib, Ahsan., Md. Borhan Uddin Bhuiyan dan Ainul Islam. 2013. Financial Distress, Earning Management and Market Pricing of Accrual During the Global Financial Crisis. *Managerial Finance*. Vol. 39, No. 2 page 155-180

Halim, Abdul. 2007. Akuntansi Sektor Publik : Akuntansi Keuangan Daerah. Edisi 3. Jakarta: Salemba Empat

Hanafi, Mamduh M dan Abdul Halim. 2016. *Analisis Laporan Keuangan*. Edisi 5. Yogyakarta: UPP STIM YKPN

<http://seknasfitra.org/moratorium-belanja-pegawai-2/>

<http://seknasfitra.org/pressrelease/birokrasi-tambun-291-daerah-habiskan-separuh-lebih-apbd-untuk-belanja-pegawai/>

Jones, Stewart dan R.G. Walker. 2007. Explanators of Local Government Distress. *ABACUS*. Vol. 43, No. 3 page 396-417

Kieso, Donald E., Jerry J. Weygandt dan Terry D. Warfield. 2008. *Akuntansi Intermediate*. Edisi ke-12, Jilid 1. Jakarta : Erlangga

Liao, Xinxin dan Yunguo Liu. 2014. Local Fiscal Distress and Investment Efficiency of Local SOEs. *China Journal of Accounting Research*. Vol. 7, page 119-147

Madona, Wenny Safitri. 2014. *Pengaruh Karakteristik Keuangan Pemerintah Daerah Terhadap Belanja Operasi Pada Pemerintah Daerah Kabupaten/Kota yang mengalami Pemekaran*. Tesis Universitas Sebelas Maret

Pasaribu, Rowland Bismark Fernando. 2008. Penggunaan Binary Logit untuk Prediksi Financial Distress Perusahaan yang Tercatat di Bursa Efek Jakarta (Studi Kasus Emiten Industri Perdagangan). *Jurnal Ekonomi Bisnis & Akuntansi Ventura*. Vol. 11, No. 2

Peraturan Pemerintah Republik Indonesia Nomor 30 Tahun 2011 tentang Pinjaman Daerah

Plat, Harlan D. dan Marjorie B. Plat. 2002. Predicting Corporate Financial Distress: Reflections on Choice-Based Sample Bias. *Journal of Economics and Finance*. Vol 26, No. 2, page 184-199

Surtikanti. 2013. Permasalahan Otonomi Daerah Ditinjau dari Aspek Perimbangan Keuangan Pemerintah Pusat dan Daerah. *Majalah Ilmiah UNIKOM.* Vol. 11, No.1

Sutaryo. 2009. *Nilai Relevan Informasi Laporan Keuangan Pemerintah Daerah di Indonesia*. Tesis Universitas Sebelas Maret Surakarta

\_\_\_\_\_\_\_\_ , Bambang Sutopo dan Ramawati. 2012. Relevansi Informasi Laporan Keuangan Cash Modified Basis : Kemampuan Rasio Keuangan dalam Memprediksi Status Financial Distress Pemerintah Daerah di Indonesia. *Simposium Nasional Akuntansi XV*. Banjarmasin, 20-23 September

Syurmita. 2014. Prediksi Financial Distress Pemerintah Daerah Kabupaten/Kota di Indonesia. *Simposium Nasional Akuntansi XVII*. Mataram, 24-27 September

Trussel, John M dan Patricia A. Patrick. 2009. A Predictive Model of Fiscal Distress in Local Governments. *Journal of Public Budgeting, Accounting & Financial Management*. 21 (4), page 578-616

Undang-Undang Republik Indonesia Nomor 32 Tahun 2004 tentang Pemerintahan Daerah

[www.bps.go.id](http://www.bps.go.id) diakses pada tanggal 5 Januari 2016 pukul 11.00 WIB

Xie, Chi., Changqing Luo dan Xiang Yu. 2011. Financial Distress Prediction Based on SVM and MDA Methods: The Case of Chinese Listed Companies. *Quality & Quantity*. 45 (3), page 671-686