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RESEARCH ARTICLE

SOLVENCY OF LOCAL GOVERNMENT BUDGETS IN THE SOUTHERN SUMATRA REGION FOR THE 2020-2023 FISCAL YEARS

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Abstract

This study aims to analyze the solvency of local government budgets in the southern Sumatra region. The method used is quantitative with a descriptive approach. Secondary data were obtained from the budget implementation reports of local governments in the Sumbagsel region for the 2020-2023 fiscal years. The population in this study consisted of 65 local governments in the Sumbagsel region. Sampling was conducted using a saturated sampling technique, where all members of the population were included as samples in the study. The results of the study indicate that in the Sumbagsel region from 2020 to 2023, the average budget solvency index (0.44) exceeded the financial health indicator, meaning that local governments in Sumbagsel were able to meet their budget obligations and cover expenditures from existing revenues. Budget solvency was classified as adequate and reflected sound financial management. At the district level, the average budget solvency index for Cluster 1 (0.43), Cluster 2 (0.46), and Cluster 3 (0.53) all indicate healthy financial conditions, signifying greater capacity for local governments to fund operational expenditures. Cluster 3 has the highest solvency and budget flexibility. At the city government level, there are two clusters with average budget solvency indices of 0.31 for Cluster 1 and 0.36 for Cluster 2. Both clusters have exceeded the minimum financial health threshold of 0.142, but Cluster 2 has better and more stable financial conditions than Cluster 1. A comparative analysis based on clusters in districts/cities shows good budget solvency. However, Cluster 1 in cities has the lowest budget solvency level.

Keywords: *Budget Solvency, Local Government Finance, Budget Implementation Report*

Introduction

Local governments control the wheels of government with the main task of ensuring accountability and transparency in financial management. Regional progress is highly dependent on efficient financial management, accountable government, and effective use of funds. (Yanti, 2018). The objective is to facilitate the evaluation of local government performance in fulfilling their obligations. The method for measuring local government performance in fiscal management is through the analysis of financial ratios related to the approved and implemented Regional Revenue and Expenditure Budget (APBD). (Hehamahua, 2014).

Government performance regarding expenditure allocation, according to FITRA (Forum Indonesia for Transparency), cannot currently be described as optimal. Based on the 2016 APBD analysis report, the average proportion of capital expenditure to total expenditure reached 21%. However, this figure is still lower than the typical percentage of 19-20% (Illahi & Haryati, 2021). In 2015, the percentage of state expenditure allocated for employees was 33.8%, and this percentage did not only come from the state budget but also from the regional budget. Approximately 240 local governments have a budget for employees of 50-70% of the total budget. These statistics indicate a significant imbalance in the budgeting system, both in local government budgets and between employee spending and development projects (Lailiyah & Desitama, 2023).

According to the Minister of Home Affairs, out of 514 districts/cities in Indonesia, around 294 regions, equivalent to 57%, are facing budget issues, with these regions allocating 50% to 73% of their total budget (Lailiyah & Desitama, 2023). As a result, excessive allocation of the budget for personnel expenditure compared to capital expenditure hinders regional development, even though capital expenditure is very important. Although local governments have alternative sources of funding such as local

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revenue for development, this misallocation of the budget actually hinders regional development activities. (Handraini et. al, 2024.)

He minister of Finance explained that in 2021, personnel expenditure at the provincial level was 27%. Personnel expenditure in 14 provinces was observed to be below the national average, although the majority of these provinces exceeded the national average of 27.6%. Bangkalan Regency, Madura, Jawa Timur, and Blitar city, Jawa Timur, had the highest personnel expenditure, while the national level, namely East Java Province, had the lowest personnel expenditure. he Minister of Finance explained that in 2021, personnel expenditure at the provincial level was 27%. Personnel expenditure in 14 provinces was observed to be below the national average, although the majority of these provinces exceeded the national average of 27.6%. The results suggest that the budget for personnel expenditure is higher than the budget for capital expenditure. This indicates that most of the local government budget is allocated for personnel expenditure, while only a small portion is allocated for public needs. (Lailiyah & Desitama, 2023)

This study uses the budgetary solvency ratio to measure the capacity of local governments to finance activities during the budget period. (Dwitayanti & Armaini, 2020). According to Ritonga, et. al, (2012) , this ratio calculates total revenue and expenditure, where a higher ratio value indicates greater local government spending capacity.

Research on budgetary solvency has been extensively conducted. For instance, a study by Oktavira & Sriningsih, (2024), examined the financial capacity of local governments in five districts/cities in Lombok, NTB, using solvency ratios and indices, and found positive financial performance.

Irfandhia Nugraha et. al, (2022) also measured budget solvency using ratios and indices, finding that districts/cities in South Sumatra Province had exceeded financial health indicators, despite a decline in 2020 due to the COVID-19 pandemic.

Anisyah & Syahran, (2022) noted that solvency ratio analysis is rarely used, and previously, local governments did not routinely conduct financial analysis. Many areas in southern Sumatra pay little attention to financial conditions, even though the State Audit Agency (BPK) assesses that local government financial performance should also be evaluated based on budget planning, not just procedural compliance. (Irfandhia Nugraha et. al, 2022).

Although there are studies discussing budget solvency, there are still gaps that need attention. Previous studies have not shown the actual condition of budget solvency and tend to focus only on the solvency index dimensions without conducting a more in-depth analysis.

This study aims to implement solvency ratio analysis at the provincial and district/city levels across the entire Sumbagsel region in managing budgets from 2020 to 2023.

This study differs from previous ones, particularly in terms of the research object, by using existing government budget realization reports in the Sumbagsel region for the 2020-2023 fiscal years with a comparative analysis based on clusters, as this has not been done in previous studies.

Literature Review

Local Government Finance

Local governments are required to systematically and structurally report on the efforts achieved during the reporting period to ensure accountability, management, transparency, and intergenerational balance. (Ariyanti, 2020).

Regional management involves the organization and management of resources to achieve the desired objectives of the region. The tool for implementing regional financial management is called regional management.

Regional Revenue and Expenditure Budget (APBD)

The Regional Revenue and Expenditure Budget (APBD) is the local government's annual financial plan, which is valid from January 1 to December 31 and is stipulated through regional regulations. (Anggi, 2022). The Regional Revenue and Expenditure Budget (APBD) serves as a guideline for determining regional revenue and expenditure projections. Its formulation is based on the needs of the government and the financial capacity of the region. In general, the APBD has three main components: regional revenue, regional expenditure, and regional financing. In addition, the APBD may also include recommendations

related to expenditure allocation, expected service standards, and cost estimates for each related activity. (Fatmawati & Ria Sari, 2021)

Budget Solvency

Budget solvency analysis, as demonstrated by Nollenberger, et al., (2023), describes the capacity of local governments to generate revenue to finance their operations throughout the fiscal cycle. The indicators reflect the long-term equilibrium between operating revenue and operating expenditure. An increase in this ratio indicates an improvement in the local government's ability to cover operational costs, resulting in higher budget solvency.

To ensure budget solvency, it is important to measure the budget solvency index and the budget solvency dimension index. Calculating this dimension index ensures the local government's ability to meet its operational costs. The higher the value of this index, the stronger the local government's capacity to finance its operations. Ritonga, (2014) quantified the financial health indicator for budget solvency at 0.142, and the calculation involved three stages.

Step 1: Measuring Budget Solvency Ratios

There are four budget solvency ratios with different calculation methods..

Rasio A =	**(Total LRA Revenue - DAK LRA Revenue) : (Total Expenditure - Capital Expenditure)**
Rasio B =	**(Total LRA Revenue - DAK LRA Revenue) : Operational Expenditure**
Rasio C =	**(Total LRA Revenue - DAK LRA Revenue) : Personnel Expenditure**
Rasio D =	**Total LRA Revenue : Total Expenditure**

Source: Local Government Financial Analysis Book by Irwan Taufiq Ritonga, 2014

All APBD revenue results are reduced due to the non-recurring nature of budget allocations, which fall outside the jurisdiction of local governments. Regarding Ratio A, all expenditures are deducted from capital expenditures, as these are excluded from the operational framework of the local government entity. Ratio B measures the local government's ability to finance its operational expenditures. In the calculation of Ratio C, employee costs serve as the denominator due to their dominance in operational costs. Ratio D measures the overall ability to finance all expenditures with total revenue.

An increase in the value of this ratio indicates better budget solvency, signifying the local government's greater ability to finance its operational expenditures. The local government's financial health indicator for budget solvency is 0.142. (Ritonga, 2014)

Priyono, (2020), states that if the budget solvency ratio falls below 1, the local government will have difficulty financing its operations. According to Maizunati, (2017), this could be caused by an increase in special allocation funds and operational costs that outpace revenue growth. Priyono, (2020) indicates that spending that continues to rise without being matched by revenue will reduce the value of the regional budget.

Step 2: Measuring the Ratio Index

Next, the ratio index is calculated using a predetermined formula.

Annual Ratio Index$_n$=	**(Actual Ratio Value$_n$ – Lowest Ratio Value) : (Highest Ratio Value – Lowest Ratio Value)**

The ratio index value is determined based on the lowest observation result as the minimum value of 0 and the highest as the maximum value of 1 from the data recorded throughout the observation period, calculated annually.

Step 3: Measuring the Budget Solvency Dimension Index

The next step is to determine the dimension index by averaging the ratio indices. Ritonga, (2014) assumes that each indicator index has the same weight in this average calculation to obtain the budget solvency dimension index.

(Ratio Index A + Ratio Index B + Ratio Index C + Ratio Index D) : 4

Method

This research is quantitative research with a descriptive approach, which means that its main focus is to explain a phenomenon through numbers. The numerical data collected will be analyzed mathematically or statistically to

identify the characteristics of a variable without comparing it to other variables.

The research population consists of 65 local governments in South Sumatra during the 2020-2023 period. Since a saturated sampling technique is used, the entire population is considered the sample. The sample taken is the local government LRA for South Sumatra from the 2020-2023 fiscal years. To collect data, this study uses secondary data in the form of the LRA, which is accessed from the official website of the Central Statistics Agency (BPS) at http://www.bps.go.id and the State Audit Agency (BPK) at http://e-ppid.bpk.go.id.

Data Analysis Techniques

Comparative Analysis

Comparative analysis was conducted based on the average values of the budget solvency index dimensions for each local government, categorized into local government clusters. The classification of local government clusters was based on the following criteria: geographical area, population size, local revenue, construction cost index, tax revenue sharing funds, human development index, regional gross domestic product per capita, and natural resource revenue sharing funds. (Baidori, 2020).

Results and Discussion

This study was conducted in local governments in the Sumbagsel region for the 2020-2023 fiscal years. The purpose of this study was to determine the budget solvency of local governments in the Sumbagsel region for the 2020-2023 fiscal years by calculating the budget solvency index.

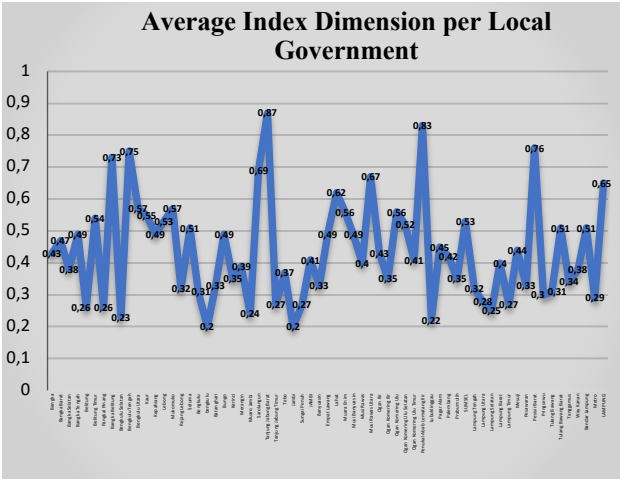
This analysis was conducted through several stages. In the first stage, the total budget solvency ratio for the entire Sumbagsel region during the 2020-2023 period was calculated. The overall average ratio obtained was ratio A (1.08), indicating that regional revenue was sufficient to cover non-capital expenditures, demonstrating good solvency for routine expenditures. Ratio B (1.28) indicates that regional revenue is sufficient to finance operational expenditures, signifying efficient financial management. Ratio C (2.42) indicates that regional revenue is significantly higher than employee expenditures, meaning that salary and allowance needs for employees can be adequately met. Ratio D (1.03) indicates that total revenue slightly exceeds total expenditures, indicating that the regional budget is overall healthy and balanced.

In the second stage, the average budget solvency ratio index was calculated. The results show that Ratio A (0.41) indicates that the ability to cover non-capital expenditures is still low. Ratio B (0.47) indicates that the ability to finance operational expenditures is almost half of the best potential. Ratio C (0.39) shows that revenue for employee expenditures is relatively low. Ratio D (0.47) indicates that the ability to cover total expenditures is still below average.

In the next stage, the overall average of the budget solvency dimension index for the Sumbagsel region for the years 2020-2023 was calculated, yielding a value of 0.44, which means it has exceeded the financial health indicator threshold. This means that the Sumbagsel regional government is able to meet its budget obligations and cover expenditures from existing revenues, so that budget solvency is adequate and reflects sound financial management.

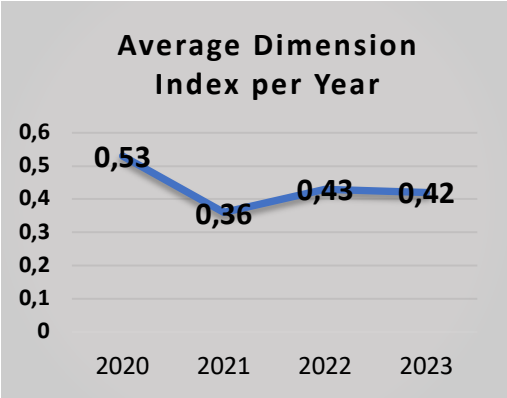
Referring to the financial health indicator for local governments in the context of budget solvency of 0.142 (Ritonga, 2014), the average index dimension for all local governments in Sumbagsel for the years 2020-2023 can be seen in Figure 1 below.

Figure 1. Average Dimension Index per Local Government



The figure above shows that Tanjung Jabung Barat Regency has the highest index (0.87), while Jambi City has the lowest index (0.20). Meanwhile, the average dimension index per year can be seen in Figure 2 below.

Figure 2. Average Dimension Index per Year



Based on the average per year in the figure above, the lowest value was recorded in 2021 (0.36) and the highest value in 2020 (0.53). In general, the average value per local government and per year indicates good capability for local governments in South Sumatra in managing their operational costs, as they have exceeded the financial health indicator threshold.

After obtaining the budget solvency dimension index, data clustering was conducted using the K-Medoid method. Based on an analysis of 50 districts in South Sumatra from 2020 to 2023, three clusters were formed. Cluster 1 consists of 16 districts with an average budget solvency index of 0.43, which has exceeded the financial health indicator. Thus, it has good solvency capacity, indicating efficient budget management and sufficient revenue to cover expenditures.

Cluster 2 consists of 32 regions with an average budget solvency index of 0.46, exceeding the financial health indicator. Better than Cluster 1, indicating higher financial stability and stronger budget management capacity.

Cluster 3 consists of 2 regions with an average budget solvency index of 0.53, exceeding the financial health indicator. It has the highest solvency level, indicating very good financial capacity and optimal readiness to meet budget obligations.

Meanwhile, based on an analysis of 10 cities in South Sumatra from 2020 to 2023, two clusters were formed. Cluster 1 consists of 6 regions with an average budget solvency index of 0.31, exceeding the financial health indicator. This indicates good budget solvency, meaning that the city governments in this cluster are sufficiently capable of covering expenditures from revenues, but still require improved financial management for greater stability and sustainability.

Cluster 2 consists of 4 regions with an average budget solvency index of 0.36, exceeding the financial health indicator. With a slightly higher index, this indicates better financial management and stronger ability to cover expenditures compared to Cluster 1.

A comparative analysis based on clusters at the district/city level shows that all clusters have good solvency levels. However, Cluster 1 in urban areas has the lowest solvency level compared to other clusters.

Conclusions and Recommendations

Overall, the average budget solvency index for each cluster at the district and city level has met the minimum financial health indicator of 0.142, indicating that the general financial condition of the regions is healthy.

At the district level, Cluster 1 (0.43), Cluster 2 (0.46), and Cluster 3 (0.53) show healthy financial conditions, with Cluster 3 having the best solvency capacity and the largest budget flexibility. The average budget solvency index of districts in Cluster 3 is better equipped to support sustainable development and address financial risks, while Clusters 1 and 2 still need to strengthen their financial management.

At the city level, the average budget solvency index for cluster 1 is 0.31 and for cluster 2 is 0.36, both exceeding the minimum threshold. However, cluster 2 shows better and more stable financial conditions, making it better prepared to address budgetary needs and financial risks.

It is recommended that local governments focus on improving financial management capacity, especially in cities in cluster 1, as they have low solvency levels. Cluster results can be used as a reference for appropriate financial management policies. Regular monitoring of solvency is important to maintain regional financial stability.

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