



## THE EFFECT FINANCIAL CONDITIONS ON COVID 19 CASE (EMPIRICAL STUDY ON LOCAL GOVERNMENTS IN WEST KALIMANTAN)

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### ABSTRAK

Pandemi Covid 19 menjadi tantangan baru bagi pemerintah daerah dalam mewujudkan tujuan negara. Pandemi Covid 19 akan berdampak langsung terhadap pengelolaan keuangan daerah dan pelaksanaan program kerja daerah. penelitian ini menggunakan pendekatan kuantitatif deskriptif dengan data sekunder berupa Laporan Realisasi anggaran 2010-2019. Hasil penelitian menunjukkan bahwa kondisi keuangan pemerintah kabupaten kota di Kalimantan Barat dalam kondisi cukup baik selama tahun 2010 hingga 2019. Solvabilitas anggaran pemerintah dalam kondisi baik dengan nilai rasio 1,2015; 1,2013; 2,1793; dan 1,0128. kemandirian keuangan pemerintah berada dalam kondisi yang kurang baik akibat rentan terhadap sumber pendanaan lain yang ditunjukkan nilai rasio 0,0597 dan 0,0600. Solvabilitas layanan dalam kondisi yang baik dengan jumlah anggaran belanja dan belanja modal yang dapat membiayai penyelenggaraan pelayanan publik sebesar Rp3.072.878 dan Rp705.509. Secara simultan kondisi keuangan berpengaruh signifikan terhadap kasus Covid 19 di wilayah kabupaten kota di Kalimantan barat. secara parsial rasio solvabilitas anggaran, kemandirian keuangan, dan solvabilitas layanan pemerintah daerah berpengaruh terhadap kasus Covid 19.

**Kata Kunci:**  
Solvabilitas  
Anggaran,  
Kemandirian  
Keuangan,  
Solvabilitas  
Anggaran,  
Covid 19 dan  
Pemerintah  
daerah

### ABSTRACT

*The Covid 19 pandemic is a new challenge for local governments in realizing the country's goals. The Covid 19 pandemic will have a direct impact on regional financial management and the implementation of regional programs. This study uses a descriptive quantitative approach with secondary data in the form of a 2010-2019 budget realization report. The results showed that the financial condition of the local governments in West Kalimantan was in fairly good condition during 2010 to 2019. The solvency of the government budget was in good condition with a ratio value of 1.2015; 1.2013; 2.1793; and 1.0128. The government's financial independence is in low condition due to being vulnerable to other funding sources, as indicated by the ratio values of 0.0597 and 0.0600. The solvency of services is in good condition with the total budget and capital expenditures that can finance the provision of public services of Rp3.072.878 and Rp705.509, respectively. Simultaneously, financial conditions have a significant effect on Covid 19 cases in local government in West Kalimantan. partially the ratio of budget solvency, financial independence, and solvency of local government services have an effect on the Covid 19 case.*

**Keywords:**  
Budgetary  
Solvency,  
Financial  
Independence,  
Service-Level  
Solvency, Covid  
19 and Local  
Government

## INTRODUCTION

West Kalimantan has a strategic position in Indonesia's economic growth. The plantation sector is the main commodity in West Kalimantan. However, areas with abundant natural resources do not reflect the condition of local communities. Gaps in regional development and economic growth occur between regions. This gap creates differences in the welfare of development and quality of life in the community. Especially between cities and counties. The city as the center of the economy is the main reference in the progress of a region. This happened in the West Kalimantan region, where Pontianak is the local government with the highest local revenue (PAD) and North Kayong Regency with the lowest PAD. Geographically and demographically, West Kalimantan Province is a province with an area of 146,807 km<sup>2</sup> and a population of more than 5,414,390 people (BPS RI, 2021). Administratively, West Kalimantan consists of 2 municipal governments and 12 district governments. As the region with the largest population on the island of Kalimantan with a fairly large area, it has an impact on the financial condition of the local government. The challenges faced by the district and municipal governments in West Kalimantan, with a limited budget, are required to maintain good financial conditions for local governments.

This condition is the basis for conducting an in-depth analysis for local governments in West Kalimantan. It is undeniable that the APBD is one of the important instruments in a regional economy. The municipal government in general becomes a reference for regional economic growth, the quality of public services, and the development of regional development. The municipal government as a regulator that carries out its role to achieve national objective. The 1945 Constitution has mandated that social justice is the goal of the Indonesian state. This task is carried out by all local governments. Local governments are tasked with realizing prosperity and providing excellent public services to the community. This is very important because since the stipulation of regional autonomy, local governments have been given the authority to manage their finances. Therefore, in realizing the goals of the state, the local government must have a reference on the financial condition of the region. This analysis of financial conditions is useful as an early warning system or early warning so that management runs optimally for the realization of the state's goal of prospering the community and providing optimal public services.

A new challenge is being faced by the regional government in West Kalimantan with the presence of an unexpected event, namely Covid 19. The Covid 19 pandemic has had a negative impact on the economy of West Kalimantan Province. In 2020 regional economic growth declined to minus -4.46% in the third quarter of 2020 (BPS Kalimantan Barat, 2020). The Covid 19 pandemic has had an impact on the regional economy. Financial condition of local government was not able to face unpredictable situation (Indriani, Lestari, & Triyani, 2020). The Covid 19 pandemic has had a major impact on the world economy (Haruhiko, 2020). Local governments are facing huge loss of revenue and increased spending caused by Covid 19 (Green & Loualiche, 2020). The Covid 19 pandemic has changed local government policies on priority budget allocations. The pandemic is predicted to occur in a fairly long period of time, so this condition causes the emergence of new procedures in people's lives. Through the spokesman for the Covid 19 Handling committee, Wiku Adisasmito, the central government is currently preparing a long-term strategy for handling Covid 19 and a national economic recovery strategy (Komite Penanganan Covid-19 dan Pemulihan Ekonomi Nasional, 2021).

The assessment of the financial condition of local governments in West Kalimantan uses three indicators; budget solvency, financial independence, and service level solvency. Financial condition in West Kalimantan local government has a declining trend for budget solvency indicator (Indriani, Lestari, & Triyani, 2020). However, financial independency and service level solvency indicators have low capability to facing unconditional situation (Indriani, Lestari, & Triyani, 2020). These factor were fundamental backround to analysed the effect of financial condition on covid 19 cases in West Kalimantan. Local governments in Indonesia have a duty to achieve national objective stated in the 1945 Constitution. This national objective can be achieved if the good level financial condition of local government's and in a health fiscal condition. The achievement of state goals can be carried out jointly by the central and local governments. In order to achieve state goals, local governments carry out programs and activities to serve the community in all fields of public service. Within the framework of regional autonomy, as stipulated in Law 32 of 2004 concerning Regional Autonomy, each Regional Government is given the right to design its own policies to achieve state goals. This policy is outlined in a strategic plan that is prepared based on the needs of each region. This condition has an impact on different program activities. Therefore, it will have an impact on the varying financial conditions of local governments. The process of implementing the budget or the process of implementing programs and activities requires local governments to interact with all stakeholders and the surrounding environment. The assessment of the financial condition of the regional government in West Kalimantan aims to provide an overview of the financial capacity of the local governments in realizing work programs amid the Covid 19 pandemic. This financial condition assessment will provide an overview of the region's ability to manage its finances optimally for the realization of national objective in the Covid pandemic situation. Good financial conditions will provide convenience for local governments in dealing with and overcoming the Covid 19 pandemic in the West Kalimantan region. Based on the current phenomenon, it is motivated to carry out research in the context of assessing the financial condition of local governments in the West Kalimantan region. This research based on experimental study with quantitative approach. This analysis will use the hypothesis as an initial guess. The proposed hypothesis is as follows:

- H1 : The financial condition of the local governments simultaneously affects the Covid 19 case.
- H2 : The solvency ratio of the budget has an effect on Covid 19 cases.
- H3 : The ratio of financial independence has an effect on Covid 19 cases.
- H4 : The service solvency ratio has an effect on Covid 19 cases.

## **THEORETICAL REVIEW**

### **Budget Solvency**

The budget solvency assessment will describe the balance between routine income and local government operational expenditures during one budget period (Ritonga, 2014). The budget solvency indicator will emphasize the revenue from the special allocation fund (DAK) as a routine income for local government. This is because the amount of DAK revenue cannot be ascertained because it is a decision of the central government. The calculation of budget solvency will compare the income of the special allocation fund with all regional expenditures in one budget period. This indicator is calculated by four ratios, as follows:

$$\text{Ratio A} = \frac{(\text{Total Revenues} - \text{Special Allocation Faud Revenue})}{(\text{Total Expenditures} - \text{Capital Expenditure})}$$

$$\text{Ratio B} = \frac{(\text{Total Revenues} - \text{Special Allocation Faud Revenue})}{\text{Operational Expenditure}}$$

$$\text{Ratio C} = \frac{(\text{Total Revenues} - \text{Special Allocation Faud Revenue})}{(\text{Employee Expenditure})}$$

$$\text{Ratio D} = \frac{\text{Total Revenues}}{\text{Total Expenditures}}$$

Determination of the results of the calculation of budget solvency with the criteria that the higher the value of the budget solvency ratio will indicate the more regional income available to finance the operational costs of the regional government.

### **Financial Independence**

Financial independence is the financial condition of local governments that are not vulnerable to sources of income outside their control, both from within the country and abroad (Ritonga, 2014). The assessment of financial independence will produce information about the strength of the local government budget in implementing all work programs that have been planned in the RAPBD.

The regional autonomy system gives authority to regions in managing their economic resources. Therefore, local governments must be able to manage local revenue sources (PAD) and develop them in accordance with applicable laws and regulations. The assessment of financial independence indicators is carried out using two ratio formulas, as follows:

$$\text{Ratio A} = \frac{\text{Total Own Revenues}}{\text{Total Revenues}}$$

$$\text{Ratio B} = \frac{\text{Total Own Revenues}}{\text{Total Expenditures}}$$

### **Service Solvency**

Service solvency is an indicator of the assessment of the financial condition of local governments that assesses the ability of local governments to provide and maintain the quality of public services needed and desired by the people of Wang et al, in (Ritonga, 2014). The service solvency assessment will compare the number of residents to be served by the local government with the total expenditure and total capital expenditure. The value of expenditure and capital expenditure is a representation of the expenditure made by the local government in realizing the work program for one budget period. In addition, capital expenditure is an expenditure that has a long-term impact on the region and the community. The service solvency assessment uses the ratio formula, as follows:

$$\text{Ratio D} = \frac{\text{Total Expenditures}}{\text{Population}}$$

$$\text{Ratio F} = \frac{\text{Total Capital Expenditure}}{\text{Population}}$$

Service level solvency was made because a technique to analyze the total expenditure made by the local government reflected how much of the budget was realized by the local government in the implementation of the previously planned work program. Meanwhile, capital expenditures are significant related to investments made by local governments to improve public services. The calculation of the solvency of services is focused on the comparison between the total expenditure to the total population and the total capital expenditure to the total population. The higher the value of the service solvency ratio will describe the level of quality of public services provided by the local government.

## **RESEARCH METHODS**

### **Research Approach**

This study uses a descriptive quantitative approach. This is based on the data collection process by first determining the variables as the basic concept that will be linked to the existing theory. This study uses the theory of financial condition assessment. The theory of financial condition is a technique used to assess the ability of local governments to realize national objective set out in the 1945 Constitution. The technique of assessing the financial condition of local governments was developed to assist regions in assessing the financial impact resulting from local government activities to national objective (Ritonga, 2014). The assessment of financial condition is arranged in six indicators including: short-term solvency, long-term solvency, budget solvency, financial independence, financial flexibility, service level solvency (Ritonga, 2014). In this study, the focus of the assessment of financial condition is on indicators of budget solvency, financial independence, and service solvency. This is caused by several factors, namely:

1. The data used is the Budget Realization Report (LRA) or the APBD Realization Report.
2. The Covid 19 pandemic is an event that only occurred on March 20, 2020 until the time this research was compiled in 2021.
3. The handling of the Covid 19 pandemic in local governments uses relatively short-term strategies.
4. Indicators of budget solvency, financial independence, and service solvency are techniques that can effectively describe regional financial conditions in dealing with the Covid 19 pandemic. In particular, the ability of regions to handle Covid 19 cases in the short term. The majority of local governments are still carrying out short-term handling of the Covid 19 pandemic (OECD, 2020).

### **Types of Research**

Based on the research objectives that have been set, this type of research is included in explanatory research. Explanatory is research that highlights the relationship between variables and tests the hypotheses that have been formulated (Sugiyono, 2018).

### **Population**

The population is the entire data source that may be obtained through the results of calculations and measurements that are quantitative or qualitative (Sugiyono, 2018). In this study, the population is the district and municipal governments in West Kalimantan including: Pontianak, Singkawang, Mempawah, Kubu Raya, Sambas, Bengkayang, Landak, Sanggau, Sekadau, Sintang, Kapuas Hulu, Melawi North Kayong and Ketapang.

### **Sample**

The sample is part of the number and characteristics possessed by the population (Sugiyono, 2018). The sample in this study was all local governments in West Kalimantan.

### **Data Source**

The type of data in this study is secondary data. The data used is the APBD realization report for the 2010-2019 budget year. This data was obtained from the Ministry of Finance of the Republic of Indonesia, Directorate General of Fiscal Balance. Covid 19 data is confirmed case data obtained from the West Kalimantan provincial health office.

### Data Aggregation Technique

Data aggregation for this research is done by accessing the data portal page of the Directorate General of Fiscal Balance (<http://www.djpk.kemenkeu.go.id/portal/data/apbd>) and the West Kalimantan Provincial Health Office (<https://dinkes.kalbarprov.go.id/Covid-kalbar/>).

### Analysis Techniques

The first stage in this research is to conduct statistical analysis to find out more about the influence of regional financial conditions on Covid 19. Statistical analysis is built by building hypotheses based on the ratio of regional financial conditions owned.

### Descriptive Statistics

Descriptive statistics aim to provide an overview of data characteristics such as mean, median mode, quartiles, and standard deviation variants (Sujarweni, 2016).

### Classic Assumption Test

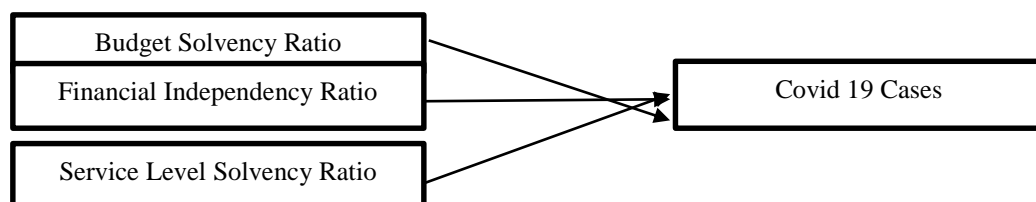
Multiple linear regression models can be called a good model if it fulfills the assumption of data normality and is free from classical statistical assumptions (Sujarweni, 2016). Classical assumption test is done by doing heteroscedasticity test, normality test, and multicollinearity test.

### Multiple Regression

Regression aims to test whether there is an influence between the dependent variable and the independent variable (Sujarweni, 2016). The dependent variable is the variable that is affected, while the independent variable is the variable that influences (Sujarweni, 2016).

### Framework of Thinking

Framework of thinking is a logical sequence of researchers to solve a problem in research that is outlined in the form of figure 1.



**Figure 1** Research Framework

## DISCUSSION

### Financial Condition Of Local Government In West Kalimantan

**Table 1** Statistical Analysis Results

		Statistics							
		Budget Solvency				Financial Independence		Service Level Solvency	
		Ratio A	Ratio B	Ratio C	Ratio D	Ratio A	Ratio B	Ratio A	Ratio B
N	Valid	140	140	140	140	140	140	140	140
	Missing	0	0	0	0	0	0	0	0
Mean		1.2076	1.1851	2.2011	1.0151	.0721	.0739	3221610.8839	848963.5444
Std. Error of Mean		.02556	.01201	.03021	.00874	.00454	.00474	108497.54867	34082.31275
Median		1.2015	1.2013	2.1793	1.0128	.0597	.0600	3072878.8878	705509.5893
Std. Deviation		.30243	.14207	.35740	.10341	.05371	.05611	1283760.30835	403267.36284
Variance		.091	.020	.128	.011	.003	.003	1648040529300.058	162624565930.991
Skewness		8.089	-.023	.248	8.042	2.295	2.244	1.047	.941
Std. Error of Skewness		.205	.205	.205	.205	.205	.205	.205	.205
Kurtosis		83.964	-.557	-.980	84.153	5.824	5.494	1.020	.517
Std. Error of Kurtosis		.407	.407	.407	.407	.407	.407	.407	.407
Range		3.48	.71	1.49	1.24	.29	.30	6031003.82	1926307.87
Minimum		.86	.86	1.59	.85	.02	.02	1214428.68	255068.98
Maximum		4.34	1.58	3.08	2.09	.31	.31	7245432.50	2181376.85
Sum		169.06	165.92	308.16	142.12	10.09	10.35	451025523.74	118854896.22

Source: Processed secondary data, 2021

#### Budget Solvency

Statistical analysis on the budget solvency of local governments in West Kalimantan Province shows that there is an abnormal distribution of data. This is indicated by the skewness value of 8.089; negative 0.023; 0.248; and 8.042, while the value of kurtosis is 83,964; negative 0.557; negative 0.980; and 84,153. Therefore, to represent the population using the median value (Ritonga, 2014). The median for ratio A is 1.2015; ratio B 1,2013; C ratio 2.1793; and the D ratio is 1.0128. This condition indicates that the local governments in West Kalimantan Province during 2010 to 2019 have sufficient income to cover their operating expenses. Based on the ratio calculation, it can be said that the local governments in West Kalimantan Province have a fairly good budget solvency. Local governments in West Kalimantan Province have the ability to cover spending. Indonesia's local governments have good capability to cover all expenditure in each fiscal year (Indriani, Lestari, & Triyani, 2020). Local governments need to be careful in the coming fiscal year so that there is no operating deficit because the operating deficit is the beginning of regional financial difficulties (Ritonga, 2014). The pandemic has had a major impact on the short-term economy (Auerbach, Gale, Lutz, & Sheiner, 2020). Local governments make adjustments to the budget, to reduce the fiscal impact of revenues and expenditures to contain the recession and accelerate economic recovery (Auerbach, Gale, Lutz, & Sheiner, 2020). A decrease in local government revenues will have a negative impact on the budget, so good financial management is needed so as not to increase the amount of debt (OECD, 2020).

#### Financial Independence

The financial independence ratio data is not normally distributed. This is indicated by the skewness value of 2.295 and 2.244, while the value of kurtosis is 5.824 and 5.494. Therefore, the median value is used to reflect the population (Ritonga, 2014). The median value of the A ratio is 0.0597 and the B ratio is 0.0600. This condition means that only 5.97% of local government revenues in West Kalimantan are under their control. The assessment indicates that local governments have weak financial independence. The

implementation of the state budget for the 2010 to 2019 fiscal year financial independence of local governments is still quite weak, because it relies on revenues from the central government in the form of general allocation funds (DAU) and special allocation funds (DAK). This condition can be caused by the enactment of the national objective in the 1945 Constitution in Article 33 which states that all natural resources that significantly affect people's lives are controlled directly by the central government (Ritonga, 2014). This causes local governments to only manage non-strategic sources of income that do not significantly affect people's lives. This is one of the factors for the low financial independence of local governments in West Kalimantan. Local governments with increased levels of financial independence can optimize economic growth in potential sectors such as the construction, manufacturing, and trade sectors (Maizunati, 2017). Indonesia's local government has less financial independent capability (Indriani, Lestari, & Triyani, 2020). The covid 19 pandemic could bring the financial condition of local governments in West Kalimantan to decline. Restrictions on community activities will have an impact on regional economic decline. This will have an impact on decreasing tax and levy revenues during pandemic. Local governments have lost income from taxes, deferred tax payments from the public, and decreased property taxes during the pandemic (Green & Loualiche, 2020).

### **Service Level Solvency**

The service level solvency in local governments in West Kalimantan using the 2010-2019 Budget Realization Report. Based on descriptive statistical analysis on service level solvency, skewness values are 1.047 and 0.941, while kurtosis values are 1.020 and 0.517. This shows that the service solvency ratio is not normally distributed so that the median value is used to represent the population (Ritonga, 2014). The median value of the two ratios shows that the district and municipal governments in West Kalimantan have a total expenditure of Rp 3,072,878 and a total capital expenditure of Rp 705,509 to provide public services for each individual. The higher the service solvency ratio value obtained, the better the local government's financial capacity in providing public services (Ritonga, 2014). In general, the solvency of services in regencies and cities has fluctuated. Local governments are required to be able to maintain the amount of expenditure and capital expenditure allocated to provide public services. This can affect the quality of service and improve the welfare of the people in their respective areas. The service level solvency indicator is strongly influenced by the rate of population growth and inflation in the region (Maizunati, 2017). The efforts of local governments to be able to provide better public services to the community can be seen from the increase in the value of the solvency ratio of their services (Cipto, 2018). Local government needed to spend more budget to deliver public services for all community (Indriani, Lestari, & Triyani, 2020).

### **The Effect Of Financial Conditions On Covid 19 Case Descriptive Statistical Analysis**

Descriptive statistical analysis was conducted to provide an overview of the variables used in the study. Descriptive statistics are used to provide an overview or description of data seen from the average value, minimum value, maximum value, and standard deviation. The results of descriptive statistical tests of budget solvency ratios, financial independence ratios, and service level ratios are as follows:



**Table 2** Results of Statistical Descriptive Analysis  
 Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Budget Solvency Ratio	140	.88	2.58	1.1960	.18366
Financial Independence Ratio	140	.02	.31	.0730	.05475
Service Level Solvency Ratio	140	13.56	15.37	14.4501	.39067
Covid 19 cases	140	5.81	8.15	6.8143	.60978
Valid N (listwise)	140				

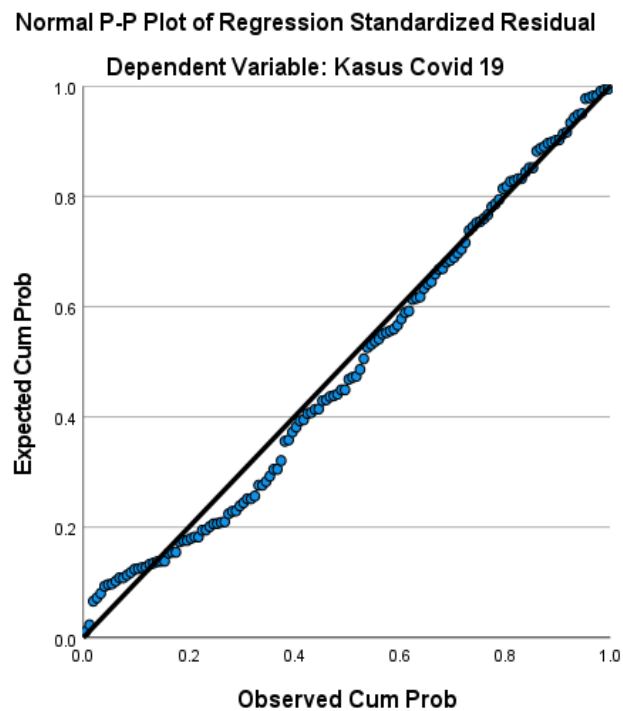
Source: Processed secondary data, 2021

Based on the figure above, it is known that the number of valid data for processing is 140. The average Covid 19 cases is 5.81 with a standard deviation of 0.60978. The average solvency ratio of the budget is 1.1960 with a standard deviation of 0.18366. The financial independence ratio has an average of 0.0730 with a standard deviation of 0.05475. The service level solvency ratio has an average of 14.4501 with a standard deviation of 0.3967. The results of descriptive statistical analysis indicate that the average value of each of the resulting variables is greater than the standard deviation. This shows that the financial condition of local governments in West Kalimantan is in good condition. Facing unexpected events such as Covid 19 requires good financial conditions. The local government budget is one of the supporters in the process of overcoming the Covid 19 pandemic. The regional government budget will help the national economic recovery after the Covid 19 pandemic (National Association of Countries, 2020).

### Classic Assumption Test

#### Normality test

The normality test aims to test whether the regression model for the related variable (dependent) and independent variable (independent) both have normal distribution conditions or not (Sujarweni, 2016). This study uses the normal p-p graph of regression standardized residuals as a test tool. If the data spreads around the diagonal line on the graph and follows the direction of the diagonal line, the regression model fulfills the assumption of normality. However, if the data spreads away from the diagonal line then it does not meet the assumption of normality. In figure 1. The normal p-p graph of standardized residual regression shows the distribution of data following the direction of the diagonal line, it can be concluded that the regression model used in this study meets the assumption of normality.



**Figure 2** Normal P-P of Regression Standardized Residual  
 Source: Processed secondary data, 2021

In the normal graph display P Plot shows that the points on the graph have approached the diagonal axis. These results indicate that the residuals have been normally distributed. To strengthen these results, a normality test was carried out using the Kolmogorov Smirnov test. Kolmogorov Smirnov test results are in the following figure 1:

**Table 3** Kolmogorov Smirnov Test Results  
 One-Sample Kolmogorov-Smirnov Test

		Budget Solvency Ratio	Financial Independence Ratio	Service Level Solvency Ratio	Covid 19 cases	
N		140	140	140	140	
Normal Parameters <sup>a,b</sup>	Mean	1.1960	.0730	14.4501	6.8143	
	Std. Deviation	.18366	.05475	.39067	.60978	
Most Extreme Differences	Absolute	.093	.201	.063	.147	
	Positive	.093	.201	.063	.147	
	Negative	-.066	-.154	-.027	-.075	
Test Statistic		.093	.201	.063	.147	
Asymp. Sig. (2-tailed) <sup>c</sup>		.005	<.001	.200 <sup>e</sup>	<.001	
Monte Carlo Sig. (2-tailed) <sup>d</sup>	Sig.	.005	.000	.187	.000	
	99% Confidence Interval	Lower Bound	.003	.000	.177	.000
		Upper Bound	.007	.000	.197	.000

- a. Test distribution is Normal.
- b. Calculated from data.
- c. Lilliefors Significance Correction.

- d. Lilliefors' method based on 10000 Monte Carlo samples with starting seed 2000000.  
 e. This is a lower bound of the true significance.

Source: Processed secondary data, 2021

The Kolmogorov Smirnov test shows that the Asymp.Sig value for the Y variable (COVID 19 cases) is <0.01; variable X1 (budget solvency ratio) 0.05; variable X2 (ratio of financial independence) <0.01; and variable X3 (service solvency ratio) 0.200; Based on the Kolmogorov Smirnov test, it can be concluded that the data based on the Kolmogorov Smirnov test data are normally distributed.

### Multicollinearity Test

Multicollinearity testing is used to see the correlation between the regression model and the independent variables (Sujarweni, 2016). In decision making, criteria are used if the VIF value > 10 then there is multicollinearity in the regression model and if the VIF value is < 10 then there is no multicollinearity in the regression model.

**Table 4** Multicollinearity Test Results

Model	Coefficients <sup>a</sup>			t	Sig.	Collinearity Statistics	
	Unstandardized Coefficients	Standardized Coefficients				Tolerance	VIF
	B	Std. Error	Beta				
1 (Constant)	15.655	1.396		11.211	<,001		
Budget Solvency Ratio	-.412	.202	-.124	-2.042	.043	.921	1.086
Financial Independence Ratio	6.545	.678	.588	9.653	<,001	.917	1.091
Service Level Solvency	-.611	.093	-.391	-6.576	<,001	.959	1.042

a. Dependent Variable: Covid 19 cases

Source: Processed secondary data, 2021

Based on the results of the multicollinearity test (table 4) on the dependent variable, the VIF value for the budget solvency ratio is 1.086; financial independence ratio 1.091; and the service solvency ratio is 1.042. It was concluded that there was no multicollinearity in the regression.

### Autocorrelation Test

A good regression model is a regression that is free from autocorrelation. Autocorrelation occurs in variables that use time series data, such as in this study, regional financial conditions in 2010-2019. Autocorrelation was tested with Durbin Watson. Durbin Watson values are expressed in the following table 5:

**Table 5** Autocorrelation Test Results  
**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.733 <sup>a</sup>	.538	.528	.41904	2.313

a. Predictors: (Constant), Service Level Solvency Ratio, Budget Solvency Ratio, Financial Independence Ratio

b. Dependent Variable: Covid 19 cases

Source: Processed secondary data, 2021

Based on table 5, the value of Durbin Watson (DW) is translated into the following calculations:

$N = 140$

$K = 3$

$dl = 1,6804$                        $4 - dl = 2,3196$

$du = 1,7678$                        $4 - du = 2,2322$

The conclusion we draw is that  $DW = 2,313$  is between areas where there is no autocorrelation.

### Heteroscedasticity Test

Heteroscedasticity test is to test the regression model so that it is not the same as the variation from residuals or observations to other observations (Sujarweni, 2016). Heteroscedasticity test was carried out by the glejser test. In the Glejser test (table 6), the absolute residual value is regressed with the independent variable.

**Table 6** Heteroscedasticity Test Results  
**Coefficients**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.785	.793		.990	.324
	Budget Solvency Ratio	.022	.115	.017	.190	.850
	Financial Independence Ratio	.010	.385	.002	.026	.979
	Service Level Solvency Ratio	-.033	.053	-.054	-.619	.537

a. Dependent Variable: AbsUt1

Source: Processed secondary data, 2021

The significance value for each independent variable is the budget solvency ratio 0.850; financial independence ratio 0.979; and service solvency ratio 0.537. Based on the glejser test, it can be seen that each research variable contributes above a significance value of 0.05 so it can be concluded that the data does not experience heteroscedasticity in the regression model.

### Multiple Regression Analysis

Multiple regression analysis aims to determine whether or not there is an influence of independent variables, namely budget solvency ratios, financial independence ratios, and service solvency ratios to the dependent variable in the COVID 19 cases. Using SPSS version 28, the following regression analysis results in table 7:

**Table 7 Multiple Regression Test Results**  
**Coefficients**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error			
1	(Constant)	15.655	1.396		11.211	<,001
	Budget Solvency Ratio	-.412	.202	-.124	-2.042	.043
	Financial Independence Ratio	6.545	.678	.588	9.653	<,001
	Service Solvency Ratio	-.611	.093	-.391	-6.576	<,001

a. Dependent Variable: Covid 19 cases

Source: Processed secondary data, 2021

Based on the multiple regression test figure, the following regression equation is obtained:

$$Y = 15,655 - 0,412X_1 + 6,545 X_2 - 0,611 X_3 + e$$

1. The constant of 15.655 states that if X1 is 0 (budget solvency ratio = 0), X2 is 0 (financial independence ratio = 0), and X3 is 0 (service solvency ratio = 0) then the Covid 19 case is 15.655.
2. X1 (budget solvency ratio) has a regression coefficient of -0.412. Nevertheless, if the solvency of the budget decreases by 1% (assuming that the value of other variables remains or does not change) it will increase by 0.412.
3. X2 (financial independence ratio) has a regression coefficient of 6.545 which states that for every 1% of the financial independence of local governments in West Kalimantan (assuming that the coefficients of other variables remain or do not change), the Covid 19 case is predicted to increase by 6.545. However, if financial independence decreases by 1% (assuming that the coefficients of other variables remain or do not change), the Covid 19 case will decrease by 6.545.
4. X3 (service solvency ratio) has a regression coefficient of -0.611 stating that for every 1% solvency of local government services (assuming that the coefficient values of other variables remain or do not change), it is predicted that there will be a decrease in Covid 19 cases of 0.611. However if the solvency of the service decreases by 1% (assuming that the coefficients of other variables remain or do not change), the number of Covid 19 cases will increase by 0.611.

### Hypothesis Testing

#### Simultaneous Significance Test (F-Test)

Simultaneous significance test is used to determine the extent to which independent variables simultaneously affect the dependent variable. The results of the f statistic test are shown in the following table 8.

**Table 8** Simultaneous Significance Test Results (F-test)  
 ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	27.804	3	9.268	52.780	<,001 <sup>b</sup>
	Residual	23.881	136	.176		
	Total	51.684	139			

a. Dependent Variable: Covid 19 cases

b. Predictors: (Constant), Service Level Solvency Ratio, Budget Solvency Ratio, Financial Independence Ratio

Source: Processed secondary data, 2021

Based on the results of the simultaneous test, it is known that the significant value is 0.01 because the sig value is smaller than the probability value of 0.05 or the value of 0.001 <0.05, then according to the basis of decision making in the F test, it can be concluded that the hypothesis is accepted in other words there is an influence significantly between budget solvency ratios, financial independence ratios, and service level solvency ratios simultaneously or together against the Covid 19 case that occurred in West Kalimantan.

### Partial Significance Test (T-test)

Hypothesis testing conducted by researchers by conducting t-test. The t test is used to determine the effect of the independent variable on the independent variable partially. To find out that the independent variables (budget solvency ratio, financial independence ratio and service solvency ratio) partially have a significant influence on the dependent variable (Covid 19 cases) it can be seen in the following table.

**Table 9** Partial Significance Test Results (T-test)

Model	Coefficients				
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	15.655	1.396		11.211	<,001
Budget Solvency Ratio	-.412	.202	-.124	-2.042	.043
Financial Independence Ratio	6.545	.678	.588	9.653	<,001
Service Level Solvency Ratio	-.611	.093	-.391	-6.576	<,001

a. Dependent Variable: Covid 19 cases

Source: Processed secondary data, 2021

Based on the results of the partial significance test, it is known that the budget solvency ratio, financial independence ratio, and service solvency ratio have a significance level smaller than the 0.05 significance level. Then the hypothesis is accepted so that it can be concluded that the financial condition of local governments in West Kalimantan has an effect on the Covid 19 cases. The results of this study show that the local government budget plays a very important role in tackling a pandemic. Good financial conditions will make it easier for local governments to deal with financial pressure due to the pandemic. Local governments are facing budgetary pressures due to Covid 19 including the need for public programs and services, increasing costs, and growing public demand for public services (Ministry of Housing, Communities and Local Government, 2021). The pandemic will increase the amount of regional spending and decrease income. The crisis due to the pandemic has an impact on local government finances, namely increased spending and decreased income (OECD, 2020). During pandemic, local governments will face new living conditions. Restrictions on community activities resulted in a slowdown in the regional economy. Therefore, local governments must be able to change the financial management system to be more effective and efficient in the future. Good regional financial management can increase regional development in equitable infrastructure development, good health services, affordable education and others (Zami, 2020).

### Coefficient of Determination Test ( $R^2$ )

Testing the coefficient of determination in this study is used to state the close relationship between the independent variable and the dependent variable. How far the regression model can explain the variation of the dependent variable. The following are the results of the coefficient of determination test.

**Table 10** Coefficient of Determination Test Results ( $R^2$ )

#### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.733 <sup>a</sup>	.538	.528	.41904	2.353

a. Predictors: (Constant), Service Level Solvency Ratio, Budget Solvency Ratio, Financial Independence Ratio

b. Dependent Variable: Covid 19 cases

Source: Processed secondary data, 2021

The results of the coefficient of determination test show that R square is 0.538 or 53.8%. This means that the independent variable in this study is able to explain 53.8% of the dependent variable while the remaining 47.2% is explained by other factors outside of these variables. Meanwhile, the correlation coefficient shown by R in the figure is 0.733. This means that the relationship between the dependent variable and the independent variable (budget solvency ratio, financial independence ratio, and service solvency ratio) is 73.3%.

## CONCLUSION

The financial condition of local governments in West Kalimantan is generally in good condition for budget solvency and service solvency. However, the financial independence of the local government in West Kalimantan is in poor condition. Local governments in West Kalimantan are projected to have good capabilities in terms of fulfilling expenditures during the pandemic, this is illustrated by the median value of the budget solvency ratio which is at 1.2015; 1,2013; 2.1793; and 1.0128. Local governments in West Kalimantan are projected to remain vulnerable to sources of income outside their control, both domestically and abroad during the pandemic. This is projected by the median financial independence ratio of 0.0597 and 0.0600. Local governments have good capabilities in maintaining the quality of public services and providing public facilities for the community. This is indicated by the median solvency ratio of Rp3.072,878 and Rp705.509, respectively. This condition is projected to affect the district government's ability to provide health services during the pandemic.

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