



Analysis of the Impact of the Covid-19 Pandemic on the Fiscal Health of Regency / City in West Sumatra Province

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ABSTRACT

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This study aims to determine the level of fiscal health before and during the covid-19 pandemic and analyze the factors that affect the fiscal health of the Regency or City Government in West Sumatra Province. Data collection was taken from the District or City Financial Statements in West Sumatra Province in 2019-2020. The entire population in this study was sampled so that 19 Financial Statements were obtained. Comparative analysis is used as a technique in conducting analysis and testing hypotheses. The results of this study indicate a significant difference in 2018-2019 before covid-19 occurred with 2020-2021 when covid-19 occurred. At the time before covid-19 occurred, there were 3 districts or cities in the good category, 16 others in the sufficient category, but during the covid-19 pandemic, all districts or cities were in the sufficient category

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1. INTRODUCTION

Humans have lived with disease outbreaks since time immemorial, because there have been several disease outbreaks since time immemorial, there have been several major disease outbreaks that hit the world on a large scale including The Black Death which appeared in the 1340s and 1350s, and the Smallpox Plague that has swept the world since the 18th century and the Spanish Flu Outbreak that occurred in 1918 (Grace-McCaskey et al., 2022; Iyengar et al., 2020). The outbreak that is currently being experienced by the country of Indonesia and almost all countries experiencing is the outbreak of Corona virus Disease 2019 (Covid-19) which was first detected in China at the end of 2019 and the character of this virus attacks breathing and its spread between humans to humans (Baswara et al., 2022; Nurfitriah et al., 2022; Pratama et al., 2021). The impact of Covid-19 can threaten the safety of human lives, shake the pillars of the economy, threaten financial system stability, hit the social resilience of the poor and cause great pressure on fiscal health (Aziz et al., 2022). Conditions like this will greatly impact the economy in Indonesia, for that the government has a role in increasing

economic development and re-triggering economic growth by carrying out several other policies (Harahap et al., 2020; Silalahi & Ginting, 2020).

According to (Gilchrist et al., 2018; Handy Aribowo et al., 2019; Morales & Reding, 2021b, 2021a) fiscal policy objectives include preventing unemployment and increasing employment opportunities, stabilizing prices, regulating the pace of investment, encouraging social investment optimally, tackling inflation, increasing economic stability amid international instability, and increasing and distributing national income. Fiscal health for the government has an important role because it is an indication of the ability of regions to meet financial obligations and provide services to the community (Donald et al., 2020; Huang & Ho, 2013; Kirchner & Wijnbergen, 2016; Morales & Reding, 2021a). Based on the contents of Law of the Republic of Indonesia Number 2 of 2020 states that, the implications of the Covid-19 pandemic have an impact on the threat of further deterioration of the financial system as indicated by a decline in various economic activities and economic growth, among others, due to declining state revenues and global economic uncertainty and changes in the posture of the State Budget (APBN) for Fiscal Year 2020, both in terms of State Revenue, State Expenditure, and Financing. Therefore, it can be interpreted that during the Covid-19 outbreak has an impact on fiscal health.

Several studies related to the fiscal health of local governments before the Covid-19 Pandemic have been conducted by (Baehaqi & Astuti, 2020; Iqbal, 2017; Maizunati, 2017; I. Ritonga, 2019) in Indonesia, (Lativa, 2021) has conducted research on fiscal policies carried out during the Covid- Pandemic19 in order to be able to improve the Indonesian economy and with the same research topic has also been carried out by (Silalahi & Ginting, 2020), regarding the fiscal policy strategy of the Indonesian government in dealing with the impact of the Covid-19 pandemic. Research conducted by (Wibawa & Putri, 2021) discusses the same thing about the assessment of government policies in dealing with Covid-19. As well as with an initial review of the impact of the Covid-19 Pandemic on the fiscal condition of local governments by (Qibthiyyah, 2021; Seda & Ismail, 2020). However, until now, there is still no research related to the comparison of the impact of the Covid-19 Pandemic on Fiscal Health between districts and cities in West Sumatra Province. This research has an important role to make fiscal policy by the Central Government and the West Sumatra Provincial Government.

The philosophy of fiscal policy is actually based on Keynes's theory. Keynes's theory came into existence as a reaction during the Great Depression that was sweeping the American economy in the 1930s. Keynes used fiscal policy not as a corrective tool but rather as a method of correcting economic imbalances. With fiscal policy, it is a way to maintain economic balance and stability for the government, therefore planning and elaboration of programs for the long term are needed (Lawal et al., 2018; Morales & Reding, 2021b). Fiscal health is needed for local governments, so that they can be better and on target in carrying out the role of government and services to the community.

Research conducted by (Natrini & Ritonga, 2017) entitled Design and Analysis of Financial Condition Local Government Java and Bali (2013-2014), The results of this study show that among the 7 clusters that have been analyzed there are variations in the results even though each cluster has socioeconomic conditions similar to each other. This variation arises in the financial condition of the Indonesian government caused by autonomous regions. (Iqbal, 2017) conducted research entitled "Design of Formulation for Performance Assessment of Fiscal Health and Regional Financial Management (Case Study of West Java Province). The results of the study do not describe the condition of fiscal health and regional financial management and do not provide justice to regions with good fiscal conditions, compared to Brown's formulation (1993).

"Despite a growing body of literature examining the overall economic repercussions of the Covid-19 pandemic, there remains a significant research gap in understanding the nuanced and specific effects of the pandemic on the fiscal health of

districts and cities within the West Sumatra Province. Limited empirical research has been conducted to comprehensively assess the multifaceted impact of the pandemic on local government revenues, expenditures, and financial stability, hindering the development of targeted policy recommendations and mitigation strategies at the sub-provincial level. This study aims to address this gap by conducting a detailed analysis of the fiscal implications of the pandemic on individual districts and cities in West Sumatra Province, thereby contributing to a more granular understanding of the challenges faced by local administrations in maintaining their fiscal health during and after the crisis." H1: There are significant differences in the fiscal health of districts / cities in West Sumatra Province before and during the Covid-19 pandemic.

2. RESEARCH METHOD

This study analyzes and differences in fiscal health before the Covid-19 pandemic and during the Covid-19 outbreak in Regencies / Municipalities in West Sumatra Province. The population used in this study is the District/City Financial Report in West Sumatra Province in 2018 - 2021 and this study uses the entire population to be sampled. The data needed in this study such as data on revenue, expenditure, and financing are all contained in local government financial statements. To be able to see the condition of fiscal health, this study uses a formula adopted from research conducted by (I. Ritonga, 2019; I. T. Ritonga et al., 2012) with measurement of local government financial condition presenting indicators and 6 dimensions of local government financial condition namely Short Term Solvency, Budget Solvency, Long Term Solvency, Service Level Solvency, Financial Flexibility, Financial Freedom and 19 Indicators. This research analysis uses a model developed by (I. Ritonga, 2019) with several stages as follows:

Stage 1: Calculates all indicators that make up the dimensions of financial condition.

Stage 2: Developing indicator indices, each indicator is calculated using a formula that is:

$$\text{Indicator Index} = (\text{Actual Value} - \text{Min Value}) : (\text{Max Value} - \text{Min Value})$$

Stage 3: Determine the dimensional index using the arithmetic mean, with the following formula:

$$\text{Dimension Index: } \frac{\sum \text{IRXi}}{n} \quad (1)$$

Where = IRX: Index Ratio, n: Number of Ratios that make up the dimension.

Stage 4: Develop a composite financial condition index (FCI), with the following formula:

$$\text{FCI} = \frac{\sum \text{DI}}{n} \quad (2)$$

Where = FCI: Financial Condition Index, $\sum \text{DI}$: Total Dimension Index, and n: Number of Dimensions

Table 1. Categorization

1	Good	If the IKK value is greater than the mean value + (1x Standard Deviation)
2	Enough	If the IKK value is between the mean - (1x standard deviation and mean + (1 x standard deviation)
3	Less	If the IKK value is less than the mean value - (1 x standard deviation)

Source: Ritonga, 2014.

Comparative analysis was carried out on a sample group of districts/cities in the year before the Covid-19 pandemic and during the Covid-19 pandemic.

3. RESULTS AND DISCUSSIONS

There are 19 Regencies / Cities in West Sumatra in 2018 – 2021 which are analyzed by their Financial Statements. The results of the fiscal health of the district/city government in West Sumatra in 2018 – 2019 before the Covid-19 pandemic and 2020 – 2021 when Covid 19 occurred.

Table 2. Fiscal Health Conditions of District/City Governments in West Sumatra in 2018 – 2019

Kab/Kota	Solva Jk Pende nk	Solva Anggaran	Solva Jk Panjan g	Solva Tingka t	Keuangan Fleksibilita s	Kebebasa n Keuangan	JKK	Ran k	Kategor i
Kab. Pariaman	1.000	17.182	0.040	0.243	749.318	0.855	128.106	1	Baik
Kota Solok	0.601	-1.334	0.040	-1.238	282.115	0.030	46.702	2	Baik
Kab. Tanah Datar	0.005	512.830	0.040	0.349	1.247	51.684	94.359	3	Baik
Kab. Pesisir Selatan	0.000	0.000	0.153	-0.461	-2.421	0.107	-0.437	4	Cukup
Kab. Dharmasraya	0.002	-3.251	0.040	0.569	0.866	-0.168	-0.324	5	Cukup
Kota Padang	0.007	-1.175	0.394	-0.235	0.000	1.000	-0.002	6	Cukup
Kota Padang Panjang	0.008	-4.768	0.040	1.000	1.635	0.014	-0.345	7	Cukup
Kota Sawahlunto	0.002	2.164	0.394	-0.806	-0.441	0.292	0.320	8	Cukup
Kab. Lima Puluh Kota	0.038	21.748	0.040	0.258	35.532	1.309	9.821	9	Cukup
Kab. Agam	0.005	-3.681	0.707	0.367	3.435	-0.235	-0.012	10	Cukup
Kab. Kepulauan Mentawai	0.001	1.000	0.040	-1.627	-3.164	-0.108	-0.637	11	Cukup
Kab. Solok	0.005	43.557	0.077	0.327	4.471	2.673	8.512	12	Cukup
Kab. Solok Selatan	0.000	10.440	0.040	0	1.123	0.885	2.140	13	Cukup
Kab. Pasaman	0.021	8.162	0.040	0.188	10.948	1.164	3.421	14	Cukup
Kab. Pasaman Barat	0.006	19.426	0.040	0.259	2.953	2.095	4.135	15	Cukup
Kab. Bukittinggi	0.018	4.137	0.040	0.023	6.449	1.345	2.002	16	Cukup
Kota Payakumbuh	0.013	5.411	0.040	0.035	3.777	1.335	1.769	17	Cukup
Kab. Padang Pariaman	0.000	5.183	0.040	0.000	-0.714	0.339	0.808	18	Cukup
Kab. Situnjung	0.014	0.208	0.040	-0.417	4.827	0.178	0.808	19	Cukup

Source: Research Results 2022

In table 2. The fiscal health condition of the Regency / City Government in West Sumatra in 2018 – 2019 where the Covid-19 pandemic has not occurred that year there are 3 districts / cities that are included in the good category, namely, Pariaman City (128,106), Solok City (46,702), and Tanah Datar Regency (94,359).

In the sufficient category, there are 16 districts/cities including South Pesisir Regency (-0.437), Dharmasraya Regency (-0.324), Padang City (-0.002), Padang Panjang City (-0.345), Sawahlunto City (0.320), Fifty City Regency (9.821), Agam Regency (-0.012), Mentawai Islands Regency (-0.637), Solok Regency (8.512), South Solok Regency (2.140), Pasaman Regency (3.421), West Pasaman Regency (4.135), Bukittinggi City (2.002), Payakumbuh City (1.769), Padang Pariaman Regency (0.808), Sijunjung Regency (0.808).

Table 3. Fiscal Health Conditions of District/City Governments
in West Sumatra Province 2020 – 2021

Kab/Kota	Solva Jk Pendek	Solva Anggaran	Solva Jk Panjang	Solva Tingkat	Keuangan Fleksibilitas	Kebebasan Keuangan	JKK	Ran k	Katego ri
Kab. Pesisir Selatan	0.021501 466	0.358319 49	0.034891 33	0.116496 337	0.010225 6	0.187308 57	0.088 14	1	Cukup
Kab. Dharmasraya	0.075223 872	0.366354 65	0.034891 33	0.264179 343	0.04585	0.086445 08	0.145 89	2	Cukup
Kota. Padang	0.035238 96	0.133975 09	0.034891 33	0.354512 824	0.049398 5	0.520309 47	0.188 05	3	Cukup
Kota Pariaman	0.036563 222	0.331829 89	0.034891 33	0.178904 626	0.182281 9	- 0.080887	0.120 6	4	Cukup
Kota Solok	1	0.137797 99	0.034891 33	0.590479 824	0.499110 7	0.057808 79	0.386 68	5	Cukup
Kota Padang Panjang	0.142140 237	0.146634 97	0.034891 33	0.666666 667	0.067543 5	0.266187 55	0.220 68	6	Cukup
Kota Sawahlunto	0.043855 42	0.211004 68	0.701558	0.719843 583	0.261763 9	0.119611 14	0.346 27	7	Cukup
Kab. Tanah Datar	0.073221 611	0.104951 08	0.034891 33	0.049580 149	0.030039 2	0.265355 61	0.093	8	Cukup
Kab. Lima Puluh Kota	0.032947 54	0.438730 91	0.034891 33	0.071344 976	0.107334 6	0.202369 63	0.147 91	9	Cukup
Kab. Agam	0.146167 768	0.104559 64	0.034891 33	0.027164 937	0.074033 4	0.091922 69	0.079 79	10	Cukup
Kab. Kepulauan Mentawai	0.127167 859	0.500101 32	0.034891 33	0.664151 676	0.248880 4	- 0.037896	0.256 22	11	Cukup
Kab. Solok	0.144231 433	0.129468	0.034891 33	0.047804 558	0.070855 9	0.021077 75	0.074 72	12	Cukup
Kab. Solok Selatan	0.082556 603	0.577257 88	0.034891 33	0.265169 057	0.023161 7	0.636172 62	0.269 87	13	Cukup
Kab. Pasaman	0.108508 655	0.378562 05	0.034891 33	0.122309 716	0.035005 9	0.383230 96	0.209 25	14	Cukup
Kab. Pasaman Barat	0.067027 204	0.342942 34	0.034891 33	0.111674 746	0.021857 5	0.411410 7	0.164 97	15	Cukup
Kab. Bukittinggi	0.204499 451	0.325612 84	0.034891 33	0.470313 727	0.069422 2	0.193525 08	0.216 38	16	Cukup
Kota Payakumbuh	0.137793 98	0.141575 65	0.034891 33	0.241189 508	0.061598 2	0.193583 37	0.135 18	17	Cukup
Kab. Padang Pariaman	0.057176 927	- 0.021889 57	0.037628 77	.0.089153 38	0.316676 5	0.339579 38	0.101 55	18	Cukup
Kab. Situnjung	0.285790 879	0.356935 67	0.034891 33	0.259763 307	0.106114	0.176483 81	0.203 33	19	Cukup

Source: Research Results 2022

In table 3. The fiscal health condition of the District/City Government in West Sumatra in 2020 – 2021 which was the year when the COVID-19 pandemic occurred. In the situation of the COVID-19 pandemic, all regencies/cities in West Sumatra Province are in the sufficient category.

The results of comparative analysis using the Wilcoxon test are:

	T 2018- T 2020	T 2019 – T 2021
Asymp. Sig (2-tailed)	0.000	0.014

Source: Research Results 2022

Based on the results of the Wilcoxon signed rank test, it was found that the significance value in 2018 and 2020 was $0.000 < 0.05$, which means that there is a significant difference in 2018 where there has not been covid in Indonesia with 2020 when the covid-19 pandemic began. In 2019 and 2021 it showed a value of $0.014 < 0.05$, this illustrates that for 2019 and 2021 there were differences in financial health before the occurrence of covid-19 and at the time of covid-19. So it can be interpreted that with the occurrence of the COVID-19 pandemic in Indonesia, resulting in the Regency / City Government in West Sumatra experiencing a decrease in the level of financial health.

4. CONCLUSION

Due to policy changes during the covid-19 pandemic, it greatly affected the financial stability of local governments, as evidenced by the level of fiscal health in district/city governments in West Sumatra in the year before the covid-19 pandemic and during the covid-19 pandemic. Therefore, the COVID-19 pandemic has resulted in a decrease in the level of fiscal health of cities/regencies in West Sumatra. These insights contribute to a broader understanding of the economic impact of the pandemic and provide actionable recommendations for policymakers to improve the fiscal health of local administrative units in West Sumatra Province. The findings of this study have several implications for future policy and research. Insights gained from this study can inform policy interventions that can improve local fiscal resilience, such as diversifying revenue sources, improving debt management practices, and strengthening community engagement in crisis response. Local government officials, especially West Sumatran politicians, to make the right decisions regarding resource allocation, budget management, and strategic planning.

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