

THE INFLUENCE OF VILLAGE FUNDS, REGIONAL TAXES AND REGIONAL RETRIBUTIONS IN THE LAKE TOBA AREA

^{*1}Cristina Efrinauli Sinaga,² Elidawaty Purba,³ Darwin Damanik

^{1,2,3}Development Economics, Faculty of Economics, Simalungun University, Indonesia

Author's email:

¹ cristinasinaga31@gmail.com

^{*}Corresponding author: cristinasinaga31@gmail.com

Abstract. National Income is the amount of income received by production factors used to produce goods and services in a certain year. And the government has also attempted to launch various policies through community empowerment programs, including the village fund program in the Lake Toba area. So the formulation of the problem in this research is what is the influence of Village Funds, Regional Taxes and Regional Levies on Per Capita Income partially and simultaneously in Districts in the Lake Toba Region. This research uses quantitative methods and the type of data used in this research is secondary data taken from BPS (Central Statistics Agency) and Djpk Ministry of Finance. And the type of data used is panel data, namely 2015-2022. The collected data was analyzed using the classic assumption test, panel data regression with Village Funds (X1), Regional Taxes (X2), Regional Levies (X3) and Per Capita Income (Y). The results of this research show that simultaneously (F Test) the Village Fund, Regional Tax and Regional Levy variables have a significant effect on Per Capita Income in Districts in the Lake Toba Region. However, partially (t test) Village Funds have a significant or positive effect on Per Capita Income in Districts in the Lake Toba Region, but Regional Taxes and Regional Levies do not have a significant or negative influence on Per Capita Income in Districts in the Lake Toba Region.

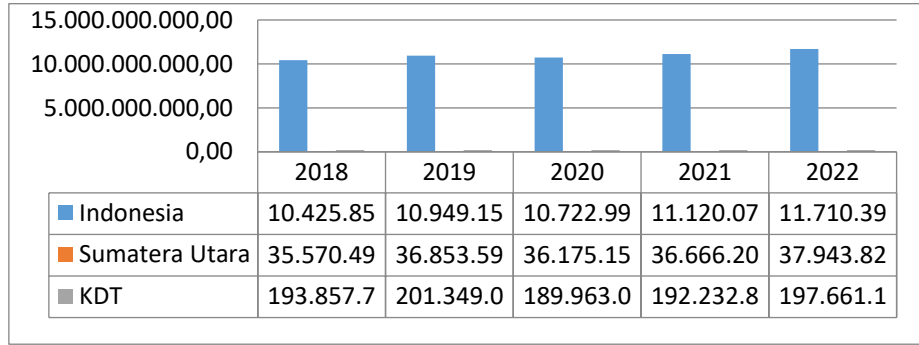
Keywords: Per Capita Income; Regional Taxes; Regional Levies; Village Funds

1. INTRODUCTION

The economic success of a country can be seen from its income in a country. The increase in the amount of national income over a certain period of time can be used to measure economic growth. The size of national income can show how much of a product can be produced. The level of welfare of the people of a country depends on the number of production facilities. Both developing and developed countries expect high levels of income. To help achieve this, developing countries that want to accelerate income to achieve levels of prosperity require large investments.

In an effort to increase regional revenues, regional taxes are one of the largest and most important sources of local revenue to finance regional government administration and regional development. As a follow-up to efforts to increase the government's ability to mobilize and utilize the results of financial resources originating from its own regional potential, especially regional taxes which are based on Law Number 33 of 2004 concerning the division of central and regional authority (Nurhayati. 2016).

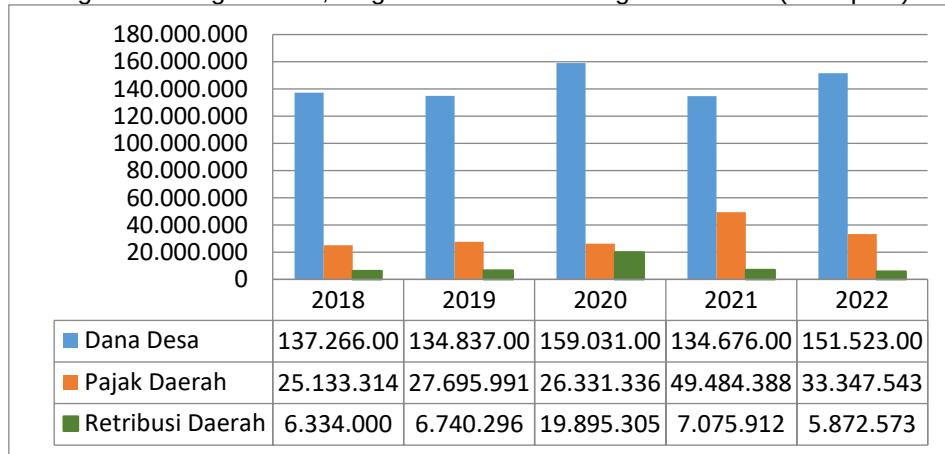
Figure 1. Per Capita Income (In Rupiah)



Source: processed data, 2024

From Diagram 1.1 you can see the development of Per Capita Income in Indonesia, North Sumatra and the Lake Toba Region from 2018 to 2022. Where Per Capita Income in 2018 was 10,425,851,900.00 and experienced an increase of 10,949,155,400.00 in 2019 but experienced a decline in 2020 it amounted to 10,722,999,300.00 then experienced an increase in 2021 amounting to 11,120,077,900.00 and in 2022 per capita income also increased by 11,120,077,900.00. From this diagram we can see that there is a very high per capita income in Indonesia, however when compared with North Sumatra and the Lake Toba area, per capita income is higher in the Lake Toba area. This achievement can be further improved in the coming years with good revenue management. This will increase people's income even higher so that welfare in an area will increase.

Figure 2 Village Funds, Regional Taxes and Regional Levies (In Rupiah)



Source: Processed data, 2024

From the diagram above we can see that Village Funds from 2018 to 2020 increased by a total of 159,031,000 and again in 2021 amounted to 134,676,000 and increased again in 2022 with a total of 151,523,000. and Regional Taxes from 2018 to 2019 also increased with the amount of 27,695,991, and decreased again in 2020 amounting to 26,331,336 then Regional Taxes increased again in 2021 with the amount of 49,484,388.00 then decreased again in 2022 amounting to 33,347,543. Meanwhile, regional levies from 2018 to 2020 increased by 19,895,305, then regional levies from 2021 to 2022 decreased by 5,872,573. This achievement can be further improved in the coming years with good management of Village Funds, Regional Taxes and Regional Retributions.

2. LITERATURE REVIEW

2.1 National Income Theory

According to Putong, et al (2017) National Income is an indicator of the capability and quality of resources (natural and human) of a country. Meanwhile, according to Rahayu, et al (2016) National Income is the amount of income received by production factors that are used to produce goods and services in a certain year. Based on national income by comparing it to population, the status of a country can be determined, for example its classification as a developed country or developing country, as a poor country or a rich country (Putong, et al. 2017). Per capita income is the reference used to calculate the level of community welfare and is calculated using the following formula:

$$\text{Per Capita Income} = \frac{\text{PDB}}{\text{Number of Population}}$$

The benefit of calculating per capita income is to observe the level of welfare and standard of living of the community and to become data in making policy decisions in the economic sector. Per capita income can be measured by dividing GDP by population. The higher a country's national income and the lower its population, the higher the level of per capita income. Income distribution is a very important macroeconomic issue because it is related to elements of equality, development, growth and sustainable economic development in the future.

2.2 Village Funds

Village funds are APBN funds intended for villages which are transferred through the Regency/City APBD and are prioritized for implementing development and empowering village communities (Indrawati.2017). Sources of Village Income are as follows: original village income, village funds sourced from the APBN, part of the Regency/City PDRD proceeds, village fund allocation, financial assistance from the Provincial APBD, grants and 3rd party donations. And the factors that influence the amount of Village Funds in each village are the number of village residents, the poverty rate in the village, the area of the village, the level of geographic difficulty and the poverty rate in the village.

Village funds are calculated based on the number of villages and allocated taking into account: population, poverty rate, area size and level of geographic difficulty. The objectives of the Village Fund are as follows: Improving public services in villages, alleviating poverty, advancing the village economy, overcoming development gaps between villages, strengthening village communities as subjects of development.

2.3 Regional Taxes

The definition or understanding of tax is that "Tax is the people's contribution to the State treasury based on law (which can be enforced) without receiving reciprocal services (counterperformance) which can be directly demonstrated and which are used to pay for public expenses."

Meanwhile, the definition of tax according to Putra (20 21) states that "Tax is a contribution to the State, which can be imposed and is owed by those who are obliged to pay it according to regulations with no return which can be directly appointed and whose purpose is to finance general expenses related to their duties. State to organize the Government. According to Kawulur, et al (2019) state that regional taxes are mandatory contributions to the region that are owed by individuals or entities that are coercive based on the law, without receiving direct compensation and are used for regional needs for the greatest prosperity of the people. And according to Nurhayati (2016) Regional Taxes are levies carried out by regional governments based on applicable laws and regulations.

From several definitions of tax, it can be concluded that tax is a mandatory contribution from the people to the State as a form of participation in development, the imposition of which is based on laws that do not receive direct compensation, and can be forced on those who violate them. As is the case with central taxes, regional taxes

have an important role in implementing state/government functions, both in the functions of regulating, budgetary and *redistributive*, as well as a combination of the three. In essence, the regional tax function can be divided into two main functions, namely the *budgetary function* and the *regulatory function*.

2.4 Regional Levy

The definition or meaning of regional levies are fees paid by the people to regions that can be enforced and receive direct returns (Putra.2020). For example, certain licensing fees, the application of which is generally applicable. From the definition of regional levies, the forced element is economic in nature so that it is essentially left to the interested party to pay certain licensing levies, so that the person can obtain the necessary permits.

In line with the explanation above in Law no. 28 of 2009 concerning Regional Levies as a replacement for Law No. 1997 as amended by Law No. 34 of 2000, further emphasizes the meaning of levies at lower levels of government, as follows. "Regional Levy is a regional levy as payment for services or the granting of certain permits which are specifically provided and/or given by the regional government for the benefit of individuals or entities.

According to Widhu Putra (20 21), "Regional levies are regional levies as payment for certain services or permits which are specifically provided and/or given by the regional government for the benefit of individuals or entities.

3. RESEARCH METHODS

The method used in this research is a quantitative method, namely a process of finding knowledge that uses data in the form of numbers as a tool to determine information regarding the influence of village funds, regional taxes and regional levies on per capita income in districts in the Lake Toba area. According to Purba, et al (2020: 56-57) Quantitative Research places greater emphasis on numerical data in analyzing it and is processed first using statistical methods. The data source in this research is secondary data. Secondary data is data obtained indirectly from research subjects. Secondary data has been collected and presented by other parties, both for commercial and non-commercial purposes.

The data collection methods used are library research and documentation. In this research, the analytical technique used is panel data regression analysis technique. Panel data is a combination of time series data and cross section data. This research uses the EVIEWS program as a tool for analyzing data.

4. RESULTS AND DISCUSSION

The following are the regression results to find out how much influence Village Funds, Regional Taxes and Regional Levies have on Per Capita Income using Panel Data analysis, Classic Assumption Test and Hypothesis Test.

1. Test Chow

Table 1. Chow Test Results

Effects Test	Statistics	f	rob
Cross-section F	36.860830	7.53)	0000
Chi-square cross-section	88.699445		0.0000

Source: data processed using EvIEWS , 2024

From the data above, it can be seen that the *Cross-section F* probability value is 0.0000, which is smaller than $\alpha < 0.05$, so it can be concluded that the type of model used is *Fixed Effect*.

2. Hausman test

Table 2. Hausman Test Results

Test Summary	Chi-Sq. Statistics	Chi-Sq. df	Prob.
Random cross-section	2.765689	3	0.4292

Source: data processed using Eviews , 2024

From the results obtained as above, the *Random Cross-section probability value* is 0.4292, which is a value greater than $\alpha > 0.05$, so it can be concluded that the *Random Effect model* is more appropriate to use.

3. Langrange Multiplier Test.

Table 3. Langrange Multiplier Test Results

	Cross-section	Test Hypothesis Time	both
Reusch-Pagan	27.9606 (.0000)	2.813823 (0.9533)	9.490024 (0.000)

Source: data processed using Eviews , 2024

Based on the results of the Langrange Multiplier Test, the suitable model to use is *Random Effect* . Based on the results of the Chow Test, Hausman Test and LM Test, the best model in this research is *Random Effect*.

4. Classic assumption test -Multicollinearity Test

Table 4. Multicollinearity Test Results

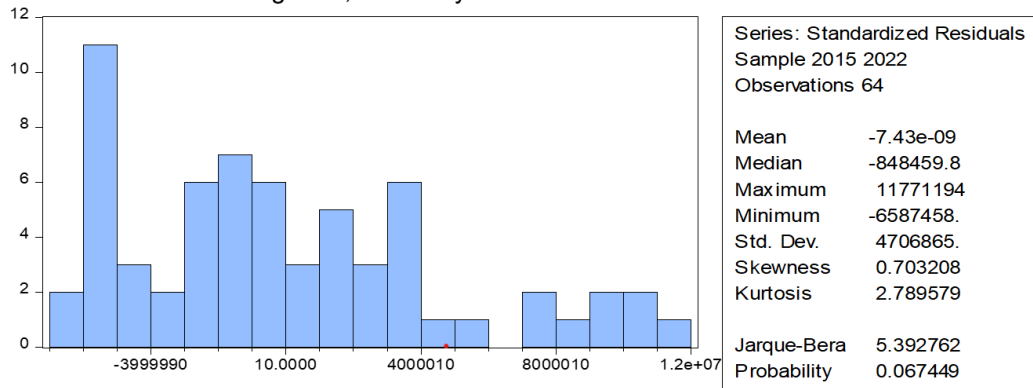
1	2	3
	7265622944947585	2472866590705258
7265622944947585		1277400664063569
02472866590705258	1277400664063569	

Source: data processed using Eviews , 2024

Based on probability data greater than $\alpha > 0.8$, the Multicollinearity result is said to have not passed, while the probability is smaller than $\alpha < 0.8$, then the Multicollinearity result is said to have passed. So based on the data above, the multicollinearity results are smaller than 0.8, it can be concluded that the results of the test are said to have passed.

-Normality test

Figure 3, Normality Test Results



Source: data processed using Eviews/, 2024

Based on the results above, the probability is greater than $\alpha > 0.05$ with a total of 0.0677449, which means that this data is normally distributed.

- Heteroscedasticity Test

Table 5. Heteroscedasticity Test Results

Variables	Coefficient	Std. Error	t-Statistics	Prob.
C	2857458.	798924.8	3.576629	0.0007
X1	0.006708	0.007090	0.946151	0.3479
X2	-0.014507	0.018618	-0.779179	0.4389
X3	0.032570	0.021766	1.496378	0.1398

Source: data processed using Eviews, 2024

From the data above it can be seen that the probability value for Village Funds is 0.3479, Regional Tax is 0.4389 and Regional Levy is 0.1398.

5. Panel Data Regression Equation

Table 6. Panel Data Regression Equation Results

Variables	Coefficient	Std. Error	t-Statistics	Prob.
C	20282316	1839613.	11.02532	0.0000
X1	0.024502	0.003905	6.274369	0.0000
X2	0.001707	0.008701	0.196144	0.8452
X3	-0.008679	0.009403	-0.922984	0.3597

Source: data processed using Eviews, 2024

Based on the results of the data above, the constant value obtained is 20282316, so it can be interpreted that if the independent variable increases evenly, the dependent will also increase. And the Village Fund results obtained were 0.024502. Meanwhile, the results from Regional Taxes were obtained at 0.001707 and the results from Regional Levies were obtained at -0.008679. Based on the results of the data above, the calculations obtained are as follows:

$$Y = 20282315.9904 + 0.0245023378297 \cdot X_1 + 0.00170663525571 \cdot X_2 - 0.00867882287566 \cdot X_3 + \varepsilon_{it}$$

6. Hypothesis testing

a. Partial Test (T Test)

Table 7. T Test Results

Variables	Coefficient	Std. Error	t-Statistics	Prob.
C	20282316	1839613.	11.02532	0.0000
X1	0.024502	0.003905	6.274369	0.0000
X2	0.001707	0.008701	0.196144	0.8452
X3	-0.008679	0.009403	-0.922984	0.3597

Source: data obtained using Eviews, 2024

- The Influence of Village Funds on Per Capita Income

From the results of the regression equation, it can be seen that the Village Fund variable (X_1) $< \alpha$ ($0.0000 < 0.05$), then the Village Fund variable has an effect on Per Capita Income (Y), so H1 is accepted and H0 is rejected.

- The Effect of Regional Taxes on Per Capita Income

The Regional Tax variable has a probability value of 0.8452. This probability value is greater than 0.05 ($0.8452 > 0.05$), so H0 is accepted and H1 is rejected.

- The Effect of Regional Levies on Per Capita Income

From the results of the regression equation, it can be seen that the Regional Retribution variable is greater than 0.05 ($0.3597 > 0.05$), so H0 is accepted and H1 is rejected.

b. Simultaneous Test (F Test)

Table 7. F Test Results

R-squared	0.454958	Mean dependent var	1729505.
Adjusted R-squared	0.427706	SD dependent var	1362846
SE of regression	1030995	Sum squared resid	6.38E+13
F-statistic	16.69440	Durbin-Watson stat	1.206930
Prob(F-statistic)	0.000000		

Source: data obtained using Eviews , 2024

The variables village funds, regional taxes and regional levies have a significant effect on per capita income in districts in the Lake Toba area,

c. Coefficient of Determination Test

Table 8. Coefficient of Determination Results

R-squared	0.454958	Mean dependent var	1729505.
Adjusted R-squared	0.427706	SD dependent var	1362846
SE of regression	1030995	Sum squared resid	6.38E+13
F-statistic	16.69440	Durbin-Watson stat	1.206930
Prob(F-statistic)	0.000000		

Source: data obtained using Eviews , 2024

Based on the data above, it can be seen that the results of the Coefficient of Determination Test from Panel Data regression are 0.454.

CONCLUSION

Based on the research results above, data management and discussion can be concluded that:

- Partially, the Village Fund variable has a positive or significant effect on per capita income in Districts in the Lake Toba area in 2015-2022. This means that the higher or lower village funds will affect the level of per capita income.
- Partially, the Regional Tax variable has no significant effect on the per capita income of Districts in the Lake Toba Region in 2015-2022. This means that the higher or lower the amount of regional taxes, the higher or lower the per capita income will not be.
- Partially, the Regional Retribution variable has no significant or negative effect on per capita income in Districts in the Lake Toba area in 2015-2022.
- Simultaneously, the variables of village funds, regional taxes and regional levies influence the per capita income variable in the Regency in the Lake Toba area.
- The coefficient of determination is 0.4277, meaning that the variables Village Funds, Regional Taxes and Regional Levies can explain Per Capita Income of 42.77%. Meanwhile, the remaining 57.23 % is explained by variables outside this research.

Based on the conclusions above, from this research the author suggests the following:

- The government should be able to increase the provision of village funds in districts in the Lake Toba area so that per capita income increases by means of village development and community empowerment.
- The government should provide regional taxes so that per capita income increases by exploring the potential of regional taxes in districts in the Lake Toba area through outreach carried out by the regional government.
- The government should provide regional levies so that per capita income increases by increasing cooperation with other companies in districts in the Lake Toba area.

REFERENCES

- Akhadi, I. 2022. The Influence of Tax Revenue on Per Capita Income Variables and Poverty Rates as Indicators of People's Prosperity. *Indonesian Tax Journal* Vol. 6 No. 1.
- Aprintina. 2019. The Influence of Profitability, Liquidity, Productive Assets, and Capital Adequacy Ratio on the Level of Profit Sharing on Mudharabah Deposits (Study of Sharia Commercial Bank Financial Reports for the 2011-2017 Period). Thesis .
- Ghozali, A, M, S. 2019. The Influence of Village Funds and Village Fund Allocations on Poverty Levels in Sendang Agung District from an Islamic Economic Perspective. Thesis.
- Indrawari, M, S. 2017. Village Fund Smart Book. Ministry of Finance of the Republic of Indonesia- Central Jakarta 10710.
- Kawulur, S, et al. 2019. Analysis of the Effect of Regional Original Income and Village Funds in Reducing Poverty Levels in 11 Districts of North Sulawesi Province *Efficiency Scientific Periodical Journal* Vol. 19 No. 03. https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=analysis+influence+of+real+regional+income+and+village+funds+in+reducing+poverty+&btnG=#d=gs_qabs&t=1705737212792&u=%23p%3DXYpj_cit5UwJ
- Nurhaida, W, E. 2011. The Influence of Regional Financial Capability on Per Capita Income with Capital Expenditures as an Intervening Variable in Regencies/Cities of North Sumatra Province.
- Nurhayati. 2016. Analysis of Regional Tax Revenue and Its Effect on Jambi City Per Capita Income. *Journal of Regional Economic and Development Perspectives*. Vol.5.No.1. https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=analysis+of+regional+tax+r+evenue+and+its+influence+on+income+per+capita+in+city+jambi&btnG=#d=gs_qabs&t=1705736809062&u=%23p%3DXfUk7_Bd8DQJ
- Pinilas, A, et al. 2019. The Influence of Village Funds on Community Income in Talaud Islands Regency. *Efficiency Scientific Periodical Journal* Vol. 19 No.03. https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=influence+of+village+funds+on+community+income+&btnG=
- Purba, E, et al. 2021. *Economic Research Methods*. Publisher: Kita Tulis Foundation Web: kitamenulis.id.
- Putong, I, et al. 2017. *Introduction to Macroeconomics* – Jakarta: Mitra Wacana Media ISBN: 978-602-8856-19-5.
- Son, W. 2021. *Regional Financial Economic Governance*/Windhu Putra – Ed.1.-Cet. 1.- Depok: Rajawali Press.
- Sanusi, A. 2017. *Business Research Methodology* – Jakarta: Salemba Four-Seventh Printing I vol., 286 pp, 17 x 24 cm ISBN 978-979-061-205-1.
- Sudarmanto, E, et al. 2021. *Economic Theory: Micro and Macro*. Our Writing Foundation ISBN: 978-623-342-321-2.
- Suliyanto. 2018. *Business Research Methods: for Theses, Theses and Dissertations* – Ed.I. – Yogyakarta: ANDI: ISBN: 978-979-29-6737-1
- Wardhana, A, et al. 2021. Impact of Regional Government Revenues and Expenditures on Per Capita Income Between West Java Regencies. *Journal of Economics and Business*. Vol.8,No.2,2021,131-141.