

## Analysis of Efficiency and Effectiveness Level Collection of Total Retribution of Waropen Regency

Pieter N de Fretes

Sekolah Tinggi Ilmu Ekonomi (STIE) Ottow Geisler Serui Kabupaten Kepulauan Yapen, Indonesia  
[pietermoisirifan69@gmail.com](mailto:pietermoisirifan69@gmail.com)

### Abstract

*The purpose of this study was to determine the average growth rate in the value of total regional levies in Waropen Regency, the efficiency level of collecting total regional retributions in Waropen Regency, the effectiveness of collecting total regional levies in Waropen Regency during the period 2014 - 2020 and projected total receipts of Regency Regional Levies. Waropen in the future. The analytical tools used in this study include; Relative growth ratio, efficiency level, effectiveness and projection level. The data used are primary and secondary data. Based on the results of the analysis, it is known that the realization of the total revenue of regional levies shows a positive growth ratio, with an average growth of 13.31% per year. Overall, the regional financial performance with respect to the total collection value of Regional Levies in Waropen district is included in the Efficient category, with an average efficiency level of 62.08% per year. The results of the measurement of the effectiveness level show that when compared to the total potential of regional levies in Waropen district, on average the percentage of realization of total regional levies during the observation period is only 63.22%. Referring to the financial performance criteria, the average percentage of 61.11% indicates that the level of management of total regional levies in Waropen district is in the "Less Effective" category. The average annual growth rate of the total target of regional levies in Waropen district is 13.97% per year, which is comparatively greater than the actual growth rate of the total revenue of regional levies which is only 10.90% per year. The gap is allegedly due to the regional prudence in setting the annual revenue target, which tends to be below the potential levy value. This is influenced by several determining factors such as: geographical conditions, the low level of public awareness in order to fulfill their obligations towards regional levies, the system and mechanism for collecting regional levies have not been optimally coordinated, and there is no application of strict sanctions against service users who do not pay off its obligations towards the payment of various components of the Regional Retribution.*

### Keywords

growth; efficiency;  
effectiveness; projection; local  
retribution



## I. Introduction

The policy of political and fiscal decentralization in Indonesia since the enactment of Law Number 22 of 1999 concerning Regional Government and Law Number 25 of 1999 concerning the balance of central and regional finance; has brought about considerable changes in the relationship between the center and the regions. The significance of the change is marked as the initial momentum of the Regional Autonomy era which implies the

delegation of some authority from the central government to regional governments. In the implementation of government politics in the regions, it is not possible to only prioritize one aspect (economics) but it is important to pay attention to other aspects, namely environmental sustainability so that the implementation of green government is very important in supporting environmental sustainability in the political process of government in the regions (Dama, 2021). The Government of the Republic of Indonesia was formed to protect the whole of the Indonesian people (Angelia, 2020). The change in the government paradigm is also accompanied by demands for greater political reforms on the performance of the Government, both at the central and regional levels; where the political space given to the community through this decentralization policy has the potential to foster the democratization process at the local level.

The granting of autonomy to regions is essentially an effort to empower regions in the context of managing development in their regions. Thus, it is hoped that each region will have creativity, innovation and independence, so that in time it is expected to be able to eliminate the level of regional dependence on the central government. In this perspective, Bratakusumah (2004: 332) emphasizes that what is more important in relation to regional autonomy is the hope of improving the quality of local government services to the community, both in the form of public services that are direct to the community, as well as the provision of goods and services. public goods (Public Goods) in supporting the overall development process in the region.

Theoretically, Regional Taxes and Regional Levies are the two components that contribute the most to the total Regional Original Income; where in general, Regional Taxes provide the largest contribution to Regional Original Income at the Provincial level, while Regional Levies provide the largest contribution to Regional Original Income at the Regency/City level.

The theoretical concept as referred to above is in accordance with the actual conditions obtained during Pre-Eliminary Research; where in the preliminary research it is seen that of the five sources of Regional Original Income, Regional Retribution is the largest contributor to Waropen Regency's Original Regional Revenue. In addition to its high contribution to the total Regional Original Revenue, the objective conditions also indicate that the results of the Waropen Regency Regional Retribution revenue have a fairly significant development trend with a positive pattern of increase.

Preliminary research also shows that by the end of 2020, there are 10 types of regional retribution collected in Waropen district; respectively: Health Service Fees, ID Card Printing Fees, Regional Wealth Usage Levies, Market Service Fees, Motor Vehicle Testing Fees, Port Services Charges, Building Permits Fees, Fisheries Business Levies, Disturbance Permit Fees, and Garbage Service Charges.

The gap between the potential revenue and the target set as well as between the target and the realization of revenue, conceptually indicates that the management/collection of the components of the Regional Retribution in Waropen district during the last seven years has not been effective and efficient. Thus, a comprehensive study is needed aimed at optimizing the management of this source of Regional Original Revenue in the future.

Referring to the objective conditions above, the authors are interested in conducting a scientific study to determine the level of efficiency and effectiveness of collecting regional levies in Waropen district based on a comparison between the potential, target and actual revenue of one of the sources of regional original income. This interest is then put into a scientific research proposal entitled: Analysis of the Level of Efficiency and Effectiveness of Collecting the Total Regional Retribution of Waropen Regency.

## 1.2 Problems

Some of the problems that underlie this research can be formulated as follows:

- a. What is the average growth rate in the value of the Total Regional Retribution for Waropen Regency during the 2014 – 2022 period?
- b. How is the efficiency level of collecting the Total Regional Retribution in Waropen Regency during the 2014-2020 period?
- c. How effective is the collection of Total Regional Retribution for Waropen Regency during the 2014-2020 period?
- d. How is the projection of total regional levies for Waropen district in the future?

## II. Review of Literature

### 2.1.Regional Revenue Concept

Regional Income is the level of community income in the Region or Area of analysis, which is obtained as a result of activities involving various factors of production. Regional income can be measured based on the total income of the analysis area, as well as the average income level of the people in the area. (Robinson's dance; 2005: 13). Although people's incomes in an area are closely related to activities in various production sectors; but the limit on Regional Income is not the same as the production value of the region; because in fact the regional community's income is only added value from these production activities.

### 2.2 Local Revenue Sources

With the enactment of Law No. 22 of 1999 and Law No. 25 of 1999 as milestones in implementing decentralization and regional autonomy policies; then the regional government that carries out the co-administration task of the central government is faced with three important principles of governance; namely Decentralization, Deconcentration and Good Government. (Haris Syamsuddin, et.al: 2004: 39).

Decentralization is the principle of governance as opposed to centralization; where decentralization itself is defined as the delegation of some authority from the central government to the government at a lower level. The division of authority and the availability of adequate space to interpret the authority given to lower government units is a new paradigm that opens up more perspectives for regions in managing regional potential, including in the management of regional finances themselves.

### 2.3 Regional Retribution Concept

Munawir (1998:5) defines levies as contributions to the government that can be imposed and can be appointed based on direct returns. The coercion in retribution is economic in nature, meaning that those who do not feel the service in return from the government are not subject to the fee. In other words, retribution is a levy that is directly related to the remuneration provided by the government to the retribution payer.

Law 34 of 2000 states that what is meant by regional retribution is regional levies as payment for certain services or permits that are specifically provided and/or granted by the regional government for the benefit of individuals or entities. In Law 34 of 2000, user charges are divided into three groups, namely a) Public Service Charges; b) Business Service Retribution; c) Certain Licensing Retribution. However, in practice, the types and procedures for collecting retribution are determined and regulated through Regional Regulations from each Regency/City.

### III. Research Method

#### 3.1 Operational Definition

In order to unify the perception regarding the research title, then some of the terms that underlie the title of this writing can be described as follows:

- a. Analysis; interpreted as an investigation of an object of observation or event to find out the actual situation; by way of outlining a subject of study into certain parts that are studied separately, in order to obtain a complete understanding of the event.
- b. Efficiency; intended as the exact way of doing something without wasting time, effort and money. In this study, the term efficiency refers to the level of conformity between the Receipt of the Regional Retribution and the Cost of Collection of the levy.
- c. Effectiveness; intended as the level of success of the implementation of an activity. In this study, the term effectiveness refers to the level of success in collecting regional levies based on the results of a comparison between potential components, targets and realization of regional levies receipts.
- d. Regional levies are regional levies as a result of the use of regional assets, or for obtaining services provided by the regions, both in the form of work and in the form of business fields. In this study, the concept of Regional Retribution includes ten types of levies collected in the Waropen district during the period 2014 – 2020.

#### 3.2 Data Analysis Techniques

In order to answer the formulation of the problem that underlies this research, four simple quantitative analysis tools are used; respectively: Relative Growth Ratio Analysis, Efficiency Analysis, Effectiveness Analysis, and Analysis of Regional Levy Projection Levels.

##### a. Relative Growth Ratio Analysis

This analysis is intended to determine the percentage of the average growth rate in the Regional Retribution revenue of Waropen Regency throughout the observation period, both partially and aggregatively. The measurement of the Relative Growth Ratio is carried out using the formula:

$$G_t = \frac{X_t - X_{t-1}}{X_{t-1}} \times 100 \%$$

(Widodo; 2004: 36)

Note:  $G_t$  = Growth Rate or growth rate in year  $t$

$X_t$  = Value of Regional Levies revenue in year  $t$ .

$X_{t-1}$  = Value of Regional Retribution revenue in the year before year  $t$ .

##### b. Efficiency Level Analysis

This analysis is intended to measure the portion of the Regional Retribution used to cover the cost of collecting the said levy. The measurement of the level of efficiency is carried out using the formula:

$$\text{Efisiensi} = \frac{\text{Biaya Pemungutan}}{\text{Penerimaan Retribusi Yang Dipungut}} \times 100 \%$$

(Team LPEM-FEUI; 2007: 6)

Collection Fees are costs incurred by the Regional Government in relation to efforts to receive Regional Levies; which includes: Operational Costs, Incentives and Wages Collected;

while the levy revenue collected is the revenue from each type of levy and the total revenue from the Waropen district levy during a certain period.

Referring to the Decree of the Minister of Home Affairs (Kepmdagri) of the Republic of Indonesia number 690.900.327 of 1996 concerning Guidelines for Financial Performance Assessment, the measures used to assess the level of efficiency of regional levies can be described in table 1 below.

**Table 1.** Criteria for Efficiency Level of Regional Levy Receipt

Financial Performance Percentage	Efficiency Level Criteria
100%	Not efficient
80 - 99%	Less Efficient
70 - 89 %	Quite Efficient
60 - 69 %	Efficient
< 60%	Very Efficient

### c. Effectiveness Analysis

This analysis is intended to measure the realization ratio or the success rate of collecting regional levies when compared to the potential sources of revenue. The measurement of the effectiveness of the results of the collection is carried out using the formula:

$$\text{Efektifitas} = \frac{\text{Total Penerimaan Retribusi Daerah}}{\text{Potensi Retribusi Daerah}} \times 100 \%$$

(Team LPEM-FEUI; 2007: 5)

Based on the Decree of the Minister of Home Affairs (Kepmdagri) of the Republic of Indonesia number 690,900,327 of 1996 concerning Guidelines for Financial Performance Assessment, the measures used to assess the effectiveness of regional levies can be described in table 2 below.

**Table 2.** Criteria for Effectiveness of Tax Collection Results

Financial Performance Percentage	Effectiveness Level Criteria
100%	Very effective
90 - 99%	Effective
80 - 89 %	Effective enough
60 - 79 %	Less effective
< 60%	Ineffective

### d. Projection Level Analysis

This analysis is intended to measure the Annual Average Growth Rate of the total regional retribution revenue value of Waropen Regency, as a basis for projecting future PAD revenue projections. The measurement of the Annual Average Growth Rate is carried out with the formula:

$$r = [n (\sqrt[n]{\frac{t_n}{t_0}})] \times 100 \%$$

(Widodo; 2004: 36)



Note:  $r$  = growth rate of potential regional levies

$t_n$  = Potential Regional Levies in the last year of the observation period

$t_0$  = Potential Regional Retribution in the early year of the observation period.

## IV. Discussion

### 4.1 Research Results

Referring to Law number 25 of 1999 concerning financial balance between the center and the regions, Waropen Regency's Original Regional Revenue (PAD) comes from four revenue components, namely: Regional Taxes, Regional Retribution Revenues, Separated Regional Assets Management Results, and Other -Other Legitimate Regional Original Income. Based on data from the Department of Revenue, Financial Management and Regional Assets (DPPKAD) Waropen district.

From the results of field research, it is also known that there are ten components of levies collected in Waropen district, respectively: Health Service Fees, ID Card Printing Fees, Regional Wealth Usage Levies, Market Service Charges, Motor Vehicle Testing Fees, Port Service Fees, License Fees Building construction, fishing business levies, nuisance permit fees, and waste service fees.

Based on their nature, the overall components of regional retribution revenue as mentioned above are grouped into three categories of retribution; namely: General Service Retribution, Business Service Retribution and Certain Licensing Retribution. The development of revenue potential, revenue targets and the realization of the total value of Regional Retribution receipts for Waropen Regency during the 2014 – 2020 period is shown in table 3 below.

**Table 3.** Waropen Regency Total Retribution Revenue Based on Potential, Target and Realized Revenue Period 2014 – 2020, in millions of rupiah

YEAR	BOP.UP	POTENCY	TARGET	REALIZATI ON
2014	3059.15	9,177.58	6,588.19	5,275.50
2015	3,410.17	9,975.63	7,486.58	5,861.67
2016	3,259.52	8,690.46	6,375.65	5,213.59
2017	3,560.82	11.270.81	8,587.52	6,509.75
2018	4,639.63	10,011.42	6,862.86	6,553.02
2019	3,863.40	9,051.85	7,267,86	5,990,14
2020	6,427.32	15,689,87	12,949.75	9,756.43

Source: Waropen Regency DPPKAD, 2021

### 4.2 Relative Growth Ratio Analysis

This analysis is intended to determine the average growth rate (Growth Rate) relative in the realization of the total receipt of the Regional Retribution Waropen throughout the observation period. This Relative Growth Ratio describes the relative ratio between the difference between the total receipts of Regional Levies in a certain year and the previous year, which is compared with the realization of the total receipts of Regional Levies in that year. The measurement of the Relative Growth Ratio is carried out using the formula:

$$G_t = \frac{X_t - X_{t-1}}{X_{t-1}} \times 100 \%$$

Note: Gt = Growth Rate or growth rate in year t

X<sub>t</sub>= total revenue of regional levies in year t.

X<sub>t-1</sub>= total revenue of regional levies in the year before year “t”.

Based on the data on the development of the realization of the total receipt of Regional Levies as shown in table 4.3, the measurement of the relative growth ratio of the total revenue of Regional Levies in 2020 compared to 2016 is measured as follows:

$$\begin{aligned}
 G_{20120} &= \frac{X_{20120} - X_{2019}}{X_{2019}} \times 100 \% \\
 &= \frac{9.756,43 - 5.990,14}{5.990,14} \times 100 \% \\
 &= \frac{3.766,29}{5.990,14} \times 100 \% \\
 &= 62,87 \%
 \end{aligned}$$

The complete results of the measurement of the relative growth ratio in the realization of the total receipts of the Waropen Regency Regional Retribution for the 2014 - 2020 period are shown in table 4. below.

**Table 4.** Relative Growth Ratio in Regional Retribution Revenue Waropen District 2014 – 2020 Period

YEAR	ACCEPTANCE REALIZATION (in million rupiah)	GROWTH RATIO (in %)
2014	5,275,50	–
2015	5,861.67	11.11
2016	5,213.59	– 11.06
2017	6,509.75	24.86
2018	6,553.02	0.66
2019	5,990,14	– 8.59
2020	9,756.43	62.87
AVERAGE GROWTH		13.31

Source: Table 4, data reprocessed

The measurement results above show that the growth ratio of the total realization of Regional Levies revenue throughout the observation period is not always positive, because in 2016 and 2019 there was a negative 11.06% and 8.59% decline, respectively. In addition to the decline in the two years, the variation in the relative growth ratio also shows a fairly wide fluctuation in the total revenue of regional levies; where the largest growth ratio was found in 2020 at 62.87% and in 2017 at 24.86%; while the smallest growth ratio was found in 2018 at 0.66%.

Although the results of the measurement of relative growth indicate a fairly wide fluctuation from period to period, by comparing the realization of the total receipts of the Waropen District Retribution between 2014 and 2020, it can be seen that there is a significant

increase; where the realization of revenue shows a positive growth ratio, with an average growth of 13.31% per year.

### 4.3 Efficiency Analysis

Efficiency analysis is intended to measure the share of revenue from the total collection of regional levies used to cover the cost of collecting the income component. Theoretically, the smaller the ratio between the two components, the more efficient the collection costs that are sacrificed. Measurement of Efficiency Level is carried out with the formula:

$$\text{Tingkat Efisiensi} = \frac{\text{Biaya Pemungutan}}{\text{Penerimaan Rtribusi Yang Dipungut}} \times 100 \%$$

Collection costs are costs incurred by the region through the relevant agencies in relation to efforts to receive the total regional levies which include: Operational Costs, Incentives and Wages Collected; while the revenue of regional levies collected is the total revenue of regional levies during a certain period. The interpretation of the total efficiency level of regional levy receipts can be described in table 5 below.

**Table 5.** Criteria for Efficiency Level of Tax Revenue

Financial Performance Percentage	Efficiency Level Criteria
100%	Not efficient
80 - 99%	Less Efficient
70 - 79 %	Quite Efficient
60 - 69 %	Efficient
< 60%	Very Efficient

Source: Ministry of Home Affairs Decree number 690,900,327 of 1996

Referring to the above formula, the efficiency level of collecting regional levies in Waropen district in 2020 is:

$$\begin{aligned} \text{Tingkat Efisiensi}_{2020} &= \frac{6.427,32}{9.756,43} \times 100 \% \\ &= 65,88 \% \end{aligned}$$

Based on the Criteria for the Efficiency of Tax Revenue as regulated in the Ministry of Home Affairs number 690,900,327 of 1996, the efficiency ratio of 65.88% obtained indicates that the financial performance regarding the collection of Regional Levies in Waropen Regency in 2020 is included in the efficient category. The results of measuring the annual efficiency level throughout the observation period are shown in table 6 below.

**Table 6.** Efficiency Level of Regional Levies Collection in Waropen District, 2014 – 2020

YEAR	BOP.UP	Period		CRITERIA
		REALIZATI ON	% EFFICIENCY	
2014	3059.15	5,275,50	57.99	Very Efficient
2015	3,410,17	5,861.67	58.18	Very Efficient



2016	3,259.52	5,213.59	62.52	Efficient
2017	3,560.82	6,509.75	54.70	Very Efficient
2018	4,639.63	6,553.02	70,80	Quite Efficient
2019	3,863.40	5,990,14	64.50	Efficient
2020	6,427.32	9,756.43	65.88	Efficient
Average Efficiency Level			62.08	Efficient

Source: Table 6, data is reprocessed

The measurement results show that the financial performance with respect to the level of efficiency in collecting various components of the Regional Retribution in Waropen district during the 2014 – 2020 period varies from Fairly Efficient to Very Efficient. The cost of collecting various components of Regional Levies in the Yapen Islands district reached the highest efficiency level in 2017, which was only 54.70% of the total receipts of Regional Levies; and is at the lowest efficiency level in 2018 with a relative efficiency level of 70.80%.

Although during the 2014 – 2020 period, the efficiency level of collecting various components of the Regional Retribution in Waropen district tends to fluctuate over time and does not have a specific pattern of increasing or decreasing trend; however, overall regional financial performance with regard to the realization and cost of collecting total regional levies in Waropen district is included in the Efficient category, with an average efficiency level of 62.08% per year.

#### 4.4 Effectiveness Analysis

The effectiveness level analysis is basically a comparative analysis that compares the realization of retribution revenue with the overall potential for retribution in a study area. Thus, the analysis of the effectiveness level is intended to measure the ratio between the realization or success rate of collecting the total Regional Retribution of Waropen Regency and the potential revenue of the levy. The level of effectiveness of the said collection results is measured using the formula:

$$\text{Efektifitas} = \frac{\text{Total Penerimaan R etribusi Daerah}}{\text{Potensi R etribusi Daerah}} \times 100 \%$$

Based on the Decree of the Minister of Home Affairs number 690,900,327 of 1996 concerning Guidelines for Financial Performance Assessment, the measures used to assess the effectiveness of levies receipts are presented in table 4.6.

**Table 7.** Criteria for Effectiveness of Tax Collection Results

Financial Performance Percentage	Effectiveness Level Criteria
100%	Very effective
90 – 99%	Effective
80 – 89%	Effective enough
60 – 79%	Less effective
< 60%	Ineffective

Source: Ministry of Home Affairs Decree number 690,900,327 of 1996

From table 7, the effectiveness level of the total receipt of the Waropen District Retribution in 2020 is measured as follows:

$$\text{Tingkat Efektifitas}_{2020} = \frac{9.756,43}{15.698,87} \times 100 \% \\ = 62,15 \%$$

Referring to the criteria for the level of effectiveness as stipulated in the Ministry of Home Affairs Number 690,900,327 of 1996; then the level of effectiveness of the total receipt of regional levies in Waropen district in 2020 is 62.15%, indicating that the realization of total receipts of regional levies in 2020 is included in the Less Effective category. The results of the measurement of the total effectiveness of regional levy receipts in the Yapen Islands district in full throughout the observation period are shown in table 4.6.

**Table 8.** Variations in the Effectiveness of Regional Retribution Receipts Waropen District, 2014 – 2020 Period

YEAR	POTENCY	REALIZATI ON	% EFFECTIVEN ESS LEVEL	CRITERIA
2014	9,177.58	5,275,50	57.48	Ineffective
2015	9,975.63	5,861.67	58.76	Ineffective
2016	8,690.46	5,213.59	59.99	Ineffective
2017	11.270.81	6,509.75	57.76	Ineffective
2018	10,011.42	6,553.02	65.46	Less effective
2019	9,051.85	5,990,14	66.17	Less effective
2020	15,689,87	9,756.43	62.15	Less effective
Average Effectiveness Level			61.11	Less effective

Source: Table 8 data reprocessed

The results of the measurement of the effectiveness level of revenue shown in table 4.6 show that during the observation period, the realization of the total receipt of Regional Levies in Waropen district was included in the Less Effective category three times, each in 2018 of 65.46%, in 2019 (66, 17 %), and in 2020 (62.15%); and four times in the "Ineffective" category, each in 2014 amounted to 57.48%, in 2015 (58.76 %), in 2016 amounted to 59.99%, and in 2016 amounted to 57.76%. On average, the percentage of the realization of total revenue for the Regional Levies Potential of Waropen Regency during the observation period is only 61.11% and is included in the "Less Effective" category.

In addition to measuring the level of effectiveness based on the ratio between the potential for regional levies and the total realization of regional levies, the formula for measuring the level of effectiveness can also be used to compare the targets and actual revenues. The results of the measurement of the effectiveness level based on the comparison between the Target and the Realization of the Total Regional Retribution for Waropen Regency for the 2014 - 2020 period are shown in table 9.

**Table 9.** Variations in the Effectiveness of Total Regional Retribution Revenue Based on Comparison of Targets and Realized Revenues Waropen District, 2014 – 2020 Period

YEAR	TARGET	REALIZATI ON	% EFFECTIVEN ESS LEVEL	CRITERIA
2014	6,588.19	5,275,50	80.07	Effective enough

2015	7,486.58	5,861.67	78.30	Less effective
2016	6,375.65	5,213.59	81.77	Effective enough
2017	8,587.52	6,509.75	75,80	Less effective
2018	6,862.86	6,553.02	95.49	Effective
2019	7,267,86	5,990,14	82.42	Effective enough
2020	12,949.75	9,756.43	75.34	Less effective
Average Effectiveness Level			81.31	Effective enough

Source: Table 4.1, data reprocessed

The relative ratio between the target and the realization of the total receipts of Regional Levies in Waropen Regency as presented in table 4.7 shows that the realization of the total receipts of Regional Levies throughout the observation period never reached the expected target so that it never reached the very effective predicate. Throughout the seven-year period, only one realization of the total Regional Retribution revenue was categorized as effective, namely in 2018; three times are in the moderately effective category and three times are in the less effective category. On average, the relative ratio between the target and the realization of the total Regional Retribution revenue of Waropen Regency is in the Quite Effective category.

#### 4.5 Growth Rate Analysis

This analysis is intended to measure successively: (a). The average annual growth rate of the Potential Regional Levies, and (b). The average annual growth rate of the Regional Levies Target for Waropen district. The measurement of the average annual growth rate is intended as a basis for projecting the potential and revenue targets of the said source of income in the future. The measurement of the average annual growth rate of the Potential and Targeted Regional Levies of Waropen Regency is carried out with the formula:

$$r = \frac{t_n - t_0}{n (t_0)} \times 100 \%$$

Note:

r = Potential growth rate / Regional Levies Target

tn = Potential/Target of Regional Retribution in the last year of the observation period .

t0 = Potential/Target of Regional Levies in the early year of the observation period.

#### 4.6 Average Annual Growth Rate of Potential Regional Levies

Based on the above formula, the potential growth rate of the total regional levy revenue of Waropen Regency is measured as follows:

$$\begin{aligned}
 r &= \frac{15.689,87 - 9.177,58}{7 (9.177,58)} \times 100 \% \\
 &= \frac{6.512,29}{64.243,06} \times 100 \% \\
 &= 0,1014 \times 100 \% = 10,14 \%
 \end{aligned}$$

The measurement results show that the annual growth rate of the total receipts of regional levies in Waropen district during the last seven years is an average of 10.14% per year. Referring to the percentage of the Growth Rate, it can be projected the potential receipts of Regional Retribution for Waropen Regency for 2021-2023, as follows:

a. Projection of Potential Regional Retribution for Waropen Regency, 2021

$$\begin{aligned} \text{Potential (2021)} &= (1 + r) \times \text{Potential (2020)} \\ &= 1.1014 \times 15,689.87 \\ &= 17,280,82 \end{aligned}$$

b. Projection of Potential Regional Retribution for Waropen Regency, 2022

$$\begin{aligned} \text{Potential (2022)} &= (1 + r) \times \text{Potential (2021)} \\ &= 1,1014 \times 17,280,82 \\ &= 19,033.09 \end{aligned}$$

c. Projection of Potential Regional Retribution for Waropen Regency, in 2023

$$\begin{aligned} \text{Potential (2023)} &= (1 + r) \times \text{Potential (2022)} \\ &= 1.1014 \times 19,033.09 \\ &= 20,963.05 \end{aligned}$$

The annual growth rate of the total potential revenue for regional levies in Waropen district is an average of 10.14% per year. If the potential growth rate of this levy is compared with the growth ratio in the realization of the total revenue of regional levies of 13.31% per year as described in section 4.2; then it can be said that the growth rate in the realization of the total receipts of regional levies in the Waropen district is greater than the growth rate in the potential regional levies in the said district.

#### 4.7 Average Annual Growth Rate of the Regional Levies Target

The average annual growth rate of the Waropen District Retribution Revenue Target is measured as follows:

$$\begin{aligned} r &= \frac{12.949,75 - 6.588,19}{7 (6.588,19)} \times 100 \% \\ &= \frac{6.361,56}{46.117,33} \times 100 \% \\ &= 0,1379 \times 100 \% = 13,79 \% \end{aligned}$$

The measurement results show that the average annual growth rate of the Waropen district retribution target for the last seven years is 13.79% per year. Based on the percentage of the growth rate, it can be projected that the Waropen Regency Regional Retribution revenue target for 2021-2024 is as follows:

a. Projection of Regional Retribution Target for Waropen Regency, 2021

$$\begin{aligned} \text{Target (2021)} &= (1 + r) \times \text{Target (2020)} \\ &= 1.1379 \times 12.949.75 \\ &= 14,735.52 \end{aligned}$$

b. Projection of Regional Retribution Target for Waropen Regency, 2022

$$\begin{aligned} \text{Target (2022)} &= (1 + r) \times \text{Target (2021)} \\ &= 1.1379 \times 14,735.52 \\ &= 16,767.55 \end{aligned}$$

c. Projection of the Regional Retribution Target for Waropen Regency, in 2023

$$\begin{aligned}\text{Target (2023)} &= (1 + r) \times \text{Target (2022)} \\ &= 1.1379 \times 16,767.55 \\ &= 19,079.80\end{aligned}$$

d. Projection of the Regional Retribution Target for Waropen Regency, in 2024

$$\begin{aligned}\text{Target(2024)} &= (1 + r) \times \text{Target (2023)} \\ &= 1.1379 \times 19,079.80 \\ &= 21,710.90\end{aligned}$$

The average annual growth rate of the Regional Levies revenue target of Waropen Regency is 13.79% per year when compared to the growth ratio in the realization of total Regional Levies revenue of 13.31% per year as described in section 4.2; it can be said that the growth rate in the realization of the total receipts of regional levies in the Waropen district is not as large as the growth rate in the revenue targets for regional levies in the said district.

The order of the average annual growth rate from the largest to the smallest in a row: (1). The growth rate of the Regional Levies Target, an average of 13.79% per year, (2). Growth rate Realization of total regional levy revenues, an average of 13.31% per year, (3). The growth rate of Potential Regional Levies, with an average growth of 10.14% per year

From a conditional study regarding the differences in Tax Potential, Targets and Realization of Total Regional Levies revenue in Waropen Regency, it is indicated that there are several factors that cause a fairly wide gap between the realization and target of regional levy receipts on the one hand, as well as the gap between the determination of the target for regional levies and the amount that is equal. lower than the actual potential tax. Some of these factors include:

1. Geographical conditions of Waropen Regency, most of which are difficult to reach by land transportation; even though there are a number of objects from various components of regional retribution scattered throughout the districts within the administrative area of Waropen district, so that the level of difficulty in realizing the target is quite high.
2. The level of public awareness of Waropen Regency is still low regarding its obligation to pay certain regional retribution components as compensation for the use of regional assets or related to the use of services provided by the region.
3. The system and mechanism for collecting regional levies from Waropen district have not been coordinated optimally; so that on the one hand it has the potential to hamper the optimization of regional retribution receipts, while on the other hand it has the potential to increase Wage levies related to the operational costs of collecting such levies.
4. There is no application of strict sanctions against taxpayers who do not pay off their obligations in paying various components of regional levies

## V. Conclusion

Based on the results of the analysis and discussion, several conclusions can be drawn as the essence of this research; namely:

1. The results of the measurement of relative growth indicate a fairly wide fluctuation in revenue from period to period. However, by comparing the realization of the total receipts of the Waropen Regency Regional Retribution between 2014 and 2020, it is seen that there is a significant increase; where the realization of the total revenue of regional levies shows a positive growth ratio, with an average growth of 13.31% per year

2. Even though during the 2014 – 2020 period, the efficiency level of collecting various components of the Regional Retribution in Waropen district has a tendency to fluctuate over time and does not have a specific tendency to increase or decrease; but overall the regional financial performance with respect to the total collection value of regional levies in Waropen district is included in the Efficient category, with an average efficiency level of 62.08% per year
- 3a. The results of the measurement of the effectiveness level show that when compared to the total potential of regional levies in Waropen district, on average the percentage of realization of total regional levies during the observation period is only 63.22%. Referring to the financial performance criteria as stated in the Decree of the Minister of Home Affairs (Kepmdagri) No. 690,900,327 of 1996, the average percentage of 61.11% indicates that the management level of total Regional Levies revenue in Waropen Regency is in the "Less Effective" category. .
- 3b. The measurement of the level of effectiveness based on the relative ratio between the target and the realization of the total receipt of Regional Levies in Waropen Regency throughout the observation period (years 2014 - 2020) is in the "Sufficiently Effective" category, with an average effectiveness rate of 81.31% per year.
- 4a. The annual growth rate of the total potential for regional levies in the Yapen Islands district is an average of 14.47% per year; while the average annual growth rate of the Waropen Regency Total Retribution Target is 13.97% per year. Thus, the annual growth rate of the potential regional levies and the target of regional levies is comparatively greater than the growth rate of the actual total revenue of regional levies which is only 10.90% per year.
- 4b. The relatively large gap between the potential and revenue targets and the realization of the total Regional Retribution revenue in the Waropen Regency is allegedly due to the regional prudence in setting the annual revenue target which tends to be below the actual value of the Potential Levies. This caution is the implication of several determining factors such as: geographical conditions, low levels of public awareness in order to fulfill their obligations towards regional levies, the system and mechanism for collecting regional levies are not optimally coordinated, and there is no application of strict sanctions against users. services that do not pay off their obligations to the payment of various components of regional levies.

## References

- Angelia, N. (2020). Analysis of Community Institution Empowerment as a Village Government Partner in the Participative Development Process. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal) Vol 3 (2): 1352-1359.*
- Dama, M., et.al. (2021). Implementation of Green Government by the Regional Government of East Kalimantan Province as a Form of Ecological Principles (Case Study of the Impact of the Implementation of Coal Mining Policy in Samarinda City). *Budapest International Research and Critics Institute-Journal (BIRCI-Journal) Vol 4 (3): 4445-4457.*
- Haris Syamsuddin, et.al; 2004., Decentralization and Regional Autonomy. LIPI's Proposed Academic Paper. Publisher. LIPI Press, Jakarta.
- Herlambang Teddy, et.al, 2001., Macro Economy: Theory, Analysis and Policy. Publisher PT. Gramedia main library, Jakarta.
- Husein Umar, 2004., Research Methods for Thesis and Thesis, Publisher PT. Raja Grafindo Persada, Jakarta.



- Kenneth Davey; 1998., Regional Government Financing. Translated: Amanullah, et.al. UI Press Publisher, Jakarta.
- Mamesah, DJ; 1995., Regional Financial Administration System. Publisher. PT. Gramedia Pustaka Utama, Jakarta
- Mangkoesebroto, G., Akhmad Makhfatih, Catur Sugiyanto, 1996, "Land and Building Tax Incidents, General Balance Approach", Journal of Economics and Industry, 3rd Edition. Publisher FE.UGM, Yogyakarta.
- Nasution, S., Thomas; 2000., Guide to Making Thesis, Thesis, Dissertation and Papers, 2nd Edition. Earth Literacy Publisher, Jakarta.
- Pass Christopher, Bryan Lowes, 1994., Collins Complete Dictionary of Economics, Tumpal Rumapea Translated. Erlangga Publisher, Jakarta.
- Samuelson Paul and William Nordhaus; 1998., Economics, 13th Edition. Translated by: Jaka Wasana, Erlangga Publisher, Jakarta.
- Widodo, T., 1999. Economic Indicators, Basic Economic Calculations in Indonesia. Kanisius Publisher, Yogyakarta.
- Winardi, M; 1997., Economic Encyclopedia. Publisher PT. Karya Nusantara Bandung Branch.
- Wirasmita, Rivai, et.al; 2002., Complete Dictionary of Economics, Publisher CV. Pioneer Jaya, Bandung.