Analysis of Potential and Effectiveness of Groundwater Tax as a Contribution to Locally-Generated Revenue of Malang City in Pandemic Era

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***Abstract**.*

Groundwater tax is a sub-section of local taxes that support the local revenue of a city or district. The collection must prioritize efficiency and effectiveness in order to meet the targets that have been set. The purpose of this study is to understand and analyze the potential and effectiveness of groundwater tax collection in Malang from 2015 until 2020.The research method that used is using the interview method and descriptive analysis with reference to the theory of absolute tax liability and the principle of domicile. Based on the results of research at the Malang City Regional Revenue Service, the potential for groundwater tax revenue according to the number of registered taxpayers continues to increase every year in a row in the research period. While the level of effectiveness of groundwater tax collection is effective in 2015 to 2018 because it fulfil the Locally-Generated Revenue's Target and also the change of it's targets are still effective in 2019 because they meet the Locally-Generated Revenue's Target even though they only meet 97% of the Change of Locally-Generated Revenue's Target, but are considered (less effective) in 2020 due to the global pandemic that affects all sectors of the economic sector.

***Keywords:** Potency, Effectiveness, Groundwater Tax, Locally-Generated Revenue*

I. INTRODUCTION

According to Undang-Undang No. 28 of 2007 [1], tax is a mandatory contributin to the state that is owed by an individual or entity that is coercive in nature based on the law, without direct compensation and is used for the needs of the state for the greatest prosperity of the people. According to Mardiasmo (2018) [2], tax is a contribution to the state which can be imposed and directly used to pay some general expenses. One of the theory according to Resmi (2014:5) [3] which supports the right of a country to collect taxes from the people is Theory of Absolute Obligation. Theory of Absolute Obligation explain that based on understand of *organische staatsleer* that explain because of the culture of a country, there is an absolute right to collect taxes.

The definition of local tax according to Mardiasmo (2018) [2] is a legal community unit that has territorial boundaries that are authorized to regulate and manage government things and the people to their own experts based on the aspirations of the people id the system of Republic of Indonesia. According to Resmi (2014:8) [3],

there are 3 (three) tax collections principle such as domicile principle, source principle and nationality principle. Local tax is based on the domicile principle, which means that the state has the right to impose taxes based on each domicile, both income originating from within and from abroad country.

Locally-generated income is one of the righf of local government that recognized as an addition to the value of net assets received through Regional Taxes, Regional Levies and Regional Assets Management Result. Locally-generated income is legally recognized as stated in Undang-Undang No. 23 2014 about Local Government Chapter 28 Paragraph (1) [4]. It explains that locally-generated income is a reflection of regional independence, so logal government ought to dig and optimize tax potential in each area to improve the welfare of the people. The Optimization step from the revenue side should be balanced with the management of the used uf the budget and the management carried out in a comprehensive manner with various strategies in accordance with the rules of regional financial management and state's finance.

According to Saragih (2003) [5], local-generated revenue is the realization of decentralization that describe and measure regional economic development. More greater the value of regional original income, more greater the allocation of regional development towards a prosperous society. Malang City Regional Regulation Number 16 of 2010 [6] explain some kinds of regional taxes are hotel tax, restaurant tax, entertainment tax, advertisement tax, street lighting tax, parking tax and groundwater tax. Based on it, it's expected to be able to increase local revenue and realize independent and prosperous regional autonomy.

One of the source of lolally-generated revenue is grandwater tax. Based on Peraturan Daerah Kota Malang No. 8 Year 2019 about Thee Second Change of Peraturan Daerah Kota Malang No. 16 Year 2010 [7] about Local Tax, explain that grandwater tax is tax on extraction and/ or utilization of ground water. Groundwater is what is found in the soil or roxk layers below the surface of the groundwater. The object of the groundwater tax is the extraction and/ or utilization of ground water. As for the things that are excluded from the collection of groundwater tax according Peraturan Daerah Kota Malang No. 8 Year 2019 [7] are house hold needs, irrigation for agriculture and fisheres, as well as worship, utilization of groundwater by the gonverment, provincial government and local government.The subject of grandwater tax are the people or entity that do extraction of grandwater.According to Peraturan Daerah Kota Malang No. 8 Year 2010 about Pajak Daerah [7], the basis for imposition of groundwater tax is based on the acquisition value of groundwater, expressed in rupiah which is calculated by considering some or all of the following factors: type of water source, location of water source, purpose of extraction or use and also quality of water.

The increase of economic in a city influence the locally-generated revenue. Based on the datas on BPS Malang City [8] the city's economy is getting increase. But

on 2020, it change to be decrease.It's caused of COVID-19 that affected whole economic sector in Malang City. This is also affected tax payability,

The research on the potential for groundwater tax on local tax revenues had been carried out by Lubis, Khairani dan Lusiana (2019) in Medan City [9]. In this research concluded that the potential grandwater tax on 2015 until 2019 in Medan had been increase every year. But on 2019, it was decrease. For the effectiveness qualification, it qualified to be effective on 2015-2018 but still not significant with local tax.

Another research about potential of grandwater tax already done by Iqbal dan Diana (2019) [10] in District Bandung which the partial effect of groundwater tax on locally-generated revenye on 2011 – 2017 is significant and potentially influential.

According to the research of Pangerapan dan Wokas (2016) [11] about the potency and effectiveness grandwater tax collection as the ;locally-generated revenue in Manado , it showed the grandwater tax target from 2012 to 2014 had been increase. But in the realization, it only can be reach 91.43% on 2012 and 57.17% on 2013. But on 2014, there were an increase to be 100.26% . The conclusion of this research is the effectiveness of grand water tax is less effective on 2012, ineffective on 2013, and very effective on 2014.

Supported by research by Fauziah, Husaini dan Shobaruddin (2014) [12] about contribution local tax as the source of locally-generated revenue District Malang from 2011 until 2013, the realization of local tax on 2013 is the highest revenue, but on 2012 is the lowest revenue.As for the effectiveness of grandwater tax in District Malang on 2011-2013 was qualified to be very effective.Based on this research, the effectiveness of local revenue of District Malang from 2011 until 2013 is very effective.
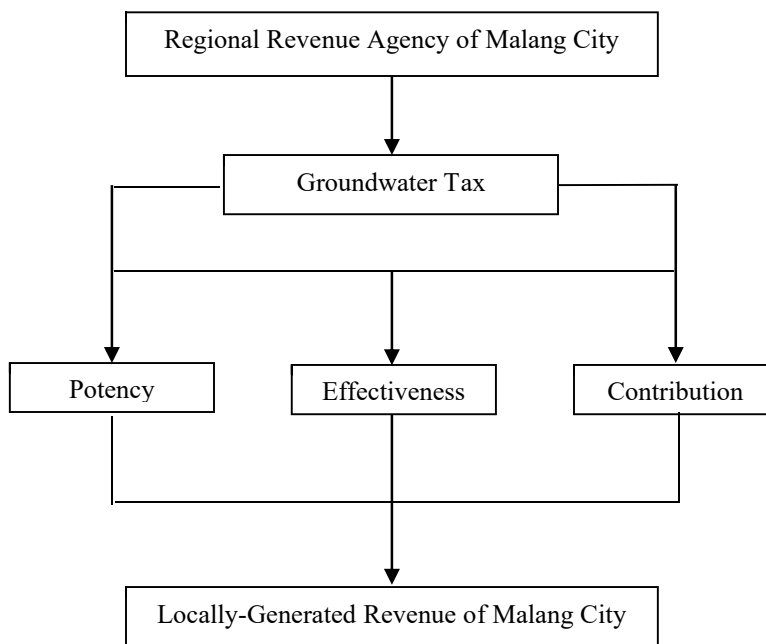
Based on the description above, the purpose of this research are to analyze the potential, target, realization of grandwater tax in Malang City expecially in pandemic era. It also to analyze effectiveness grandwater tax collection and it's contribution to locally-generated revenue in Malang City.

II. METHODS

The research method in this case is using the interview method and descriptive analysis. Interview method is the obtaining data for research by means of questions between interviewer and the respondent. The interview was carried out with several staff from Regional Revenue Agency of Malang City. While descriptive analysis is a description of a condition of an object in the form of a sentence description. The results will be interpreted as a form of a clear explanation.

The subject of this research is Regional Revenue Agency of Malang City that placed in Gedung Terpadu Gedung B First Floor, Jalan Mayjend Sungkono, Kecamatan Kedung Kandang, Kota Malang, Jawa Timur 65132. The period of this research is from 2015 until 2020.

The conceptual framework of this research is as follows:

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│      Regional Revenue Agency of Malang City  │
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          ┌─────────────────────────┐
          │      Groundwater Tax     │
          └─────────────────────────┘

┌──────────────┐   ┌──────────────┐   ┌──────────────┐
│   Potency    │   │ Effectiveness│   │ Contribution │
└──────────────┘   └──────────────┘   └──────────────┘
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    ┌───────────────────────────────────────────┐
    │  Locally-Generated Revenue of Malang City  │
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Pig 1. Conceptual Framework

The analysis of groundwater tax are include several things such as potential of groundwater taxes, the target and realization of groundwater taxes, effectiveness of groundwater taxes and aldo the contribution of groundwater taxes to local-generated revenue of Malang City.

a.   The Potential of Groundwater Tax
The potential of groundwater tax is obtained through secondary datas regarding the number of registered tax payors. Meanwhile, according to the staff of the is Regional Revenue Agency of Malang City's staff, the potential data can't be given due the development of groundwater tax.

b.   The Target and Realization of Groundwater Tax
The target and realization of groundwater tax is showed regarding secondary datas. The target of groundwater tax is obtained from the increase of pontential groundwater tax with intensification and extentifitation of groundwater tax. Intentisificationcan be done by improving groundwater tax collection process and determination of tax amount. Ekstentification can be done by supervision to find new tax payor. The increase of tax payor for groundwater tax will affect acceptance of groundwater tax.

c.   Effectiveness of Groundwater Tax Collection
Effectiveness of groundwater tax collection showed from the secondary datas from Regional Revenue Agency of Malang City. Later on it, this datas will be presented with this following formula:

$$Efektivitas = \frac{realisasi\ pajak}{target\ pajak} \times 100\%$$

(Source: Halim, 2004:168) [13]

d.   The Contribution of Grandwater Taxes to Local-Generated Revenue of Malang City

Total amount of contribution of grandwater taxes is obtained from secondary datas with this following formula:

$$Pa = \frac{QXn}{QYn} \times 100\%$$

(Source: Halim, 2004:167) [13]

(Pa) is contribution.
(QX) is grandwater taxes revenue.
(QY) is local tax.
(n) is period.

According to Mahmudi:2016, some criteria of effectiveness of regional financial performance are:

PERCENTAGE	CRITERIA
>100%	Very Effective
90% - 100%	Effective
80% - 90%	Effective Enough
60% -80%	Less Effective
<60%	Ineffective

Table 2.1
Classification of Regional Financial Performance Effectiveness Measurement
Source: Mahmudi, 2016 [14]

III. RESULT AND DISCUSSION
1.   The Potential of Groundwater Tax

YEAR	TAX PAYOR
2015	413
2016	419
2017	498
2018	490
2019	572
2020	583

Table 2. Grandwater Tax Payor in Malang City (2015 – 2020)

https://ijersc.org

(Source: Regional Revenue Agency of Malang City, 2021) [15]

Based on research on Regional Revenue Agency of Malang City, there are some progress of total of grandwater tax payor from 2015 until 2020 except in 2018 there is a decrease of total of grandwater tax payor to be 490 tax payor. The increase of total of grandwater tax payor is caused of a new tax payor that register their business. The decrease of total of grandwater tax payor is caused of the status of tax payor become in effective. From the table above, we can know that the potential of grandwater tax is increase.

But, the potential of grandwater tax can't be measure from the total of grandwater tax payor, but also from unregistered tax payor too. Based on the result of an interview with the staff of Regional Revenue Agency of Malang City, the potential of grandwater tax can't be measure because there are many unregistered grandwater tax payor and unregistered business in Malang. Beside it, there are no resources to conduct surveys.

2. Target and Realization of Grandwater Tax

Table 3.2 Target and Realization Grandwater Tax in Malang City 2015 - 2020

YEAR	RIEB TARGET	C-RIEB TARGET	REALIZATION
2015	Rp 749.475.964,90	Rp 749.475.964,90	Rp 777.523.080,54
2016	Rp 600.000.000,00	Rp 600.000.000,00	Rp 809.152.586,19
2017	Rp 600.000.000,00	Rp 600.000.000,00	Rp 807.463.681,49
2018	Rp 800.000.000,00	Rp 800.000.000,00	Rp 909.863.768,93
2019	Rp 800.000.000,00	Rp 1.000.000.000,00	Rp 973.745.458,12
2020	Rp 1.500.000.000,00	Rp 1.247.382.431,25	Rp 987.701.497,41

(Source: Regional Revenue Agency of Malang City, 2021) [15]

Based on Table 3.2, there are 3 components in that table such as Regional Income and Expenditure Budget (RIEB), Change of Regional Income and Expenditure Budget (C-RIEB) and Realization. According to UU No. 17 Year 2003 about State Finance, it explain that RIEB is the annual financial plan of the Regional Gonverment approved by the Regional People's Representative Council. Based on the table, the target of RIEB decrease on 2016, then increase on 2018 and 2020.lalu meningkat kembali di tahun 2018 dan 2020.

Permendagri No. 13 Year 2006 explain about Change of Regional Income and Expenditure Budget can be done if:
a. Developments that are not in accordance with KUA's assumptions;
b. Circumtances that cause in the budget between organizational units, activities, and types of spending;
c. Circumtances that cause the budget balance in excess of the previous year to be used in the current year;
d. Emergency situation, and;
e. Extraordinary circumtances.

Based on the Table 3.2, there are an increase of realization of grandwater tax on 2016 – 2016.It's followed by the increase ofthe total of grandwater tax payor. Both in 2015 and 2016, the target of RIEB and C-RIEB can be fulfilled.

But in 2017, the realization of grandwater tax had been decrease to be Rp. 807.463.681,49 even though the amount of grandwater tax payor increased.Based on the result of an interview with the staff of Regional Revenue Agency of Malang City, even there are an increase of grandwater tax payor, the realization is also affected by the tax collection system. Luckyly, the target is still achieved.

There are some increases of realization of grandwater tax on 2018 until 2020. Although on 2018 the amount of tax payor is decrease, the realization of grandwater tax can reach both of target RIEB and also C-RIEB.

Otherwise on 2019 and 2019, the realization target can't be reach. Expecially for 2020, even the C-RIEB had been taken down because of pandemic, it still can't reach the target. The pandemic effect influence community economic level.

3. Effectiveness of Grandwater Tax

Table 3. Effectiveness of Grandwater Tax Malang City (2015 – 2020)

Year	Rieb Target	C-Rieb Target	Realization	Effectiveness
2015	Rp 749.475.964,90	Rp 749.475.964,90	Rp 777.523.080,54	103,74%
2016	Rp 600.000.000,00	Rp 600.000.000,00	Rp 809.152.586,19	134,86%
2017	Rp 600.000.000,00	Rp 600.000.000,00	Rp 807.463.681,49	134,58%
2018	Rp 800.000.000,00	Rp 800.000.000,00	Rp 909.863.768,93	113,73%
2019	Rp 800.000.000,00	Rp 1.000.000.000,00	Rp 973.745.458,12	97,37%
2020	Rp 1.500.000.000,00	Rp 1.247.382.431,25	Rp 987.701.497,41	79,18%

(Source: Regional Revenue Agency of Malang City, 2021) [15]

Based of the table, the effectiveness of grandwater tax from 2015 until 2020 is more than 100% which mean it's very effective. On 2019, the effectivity decrease to be 97,47% and classified to be effective. On 2020, it classified to be less efektive because it's decrease from the las year to be 79,18%.

4. Contribution of Grandwater Tax to Locally-Generated Revenue

Table 4. Contribution of Grandwater Tax to Locally-Generated Revenue of Malang City 2015 – 2020

YEAR	GRANDWATER TAX	LOCALLY-GENERATED REVENUE	CONTRIBUTION(%)
2015	Rp 777.523.080,54	Rp 1.829.072.689.000,71	0,043%
2016	Rp 809.152.586,19	Rp 1.711.185.350.000,08	0,047%
2017	Rp 807.463.681,49	Rp 1.971.916.657.000,65	0,041%
2018	Rp 909.863.768,93	Rp 2.040.284.240.000,91	0,045%
2019	Rp 973.745.458,12	Rp 2.247.769.414.000,04	0,043%
2020	Rp 987.701.497,41	Rp 3.812.897.000.000,52	0,026%

(Source: Regional Revenue Agency of Malang City, 2021) [15]

Based on the Table 3.4, the contribution of grandwater tax to localy-generated revenue of Malang City from 2015 until 2020 is between 0,026% until 0,047% every year.The contribution is 0,043%; 0,047%; 0,041%; 0,045%; 0,043%; 0,026%. The highest contribution is on 2016, and the lowest contribution is on 2020.

According to interview result, the contribution of grandwater tax is the least. It caused of the tax collection system, not using Official Assessment but Self Assessment.

IV. CONCLUSION

1. The potency of grandwater tax in Malang City based on tax payor get increase on 2015 until 2017, but it's being decrease on 2018. The tax payor increase again on 2019 and followed on 2020.
2. The realization of grandwater tax from 2015 until 2018 can reach the target , but not in 2019 and 2020.
3. The decrease of grandwater tax in 2020 is affected by COVID-19.
4. The effectiveness of grandwater tax from 2015 until 2018 is very effective. On 2019 is classified as effective, but less effective on 2020.
5. The contribution of grandwater tax to locally-generated revenue is the least. It because of the tax collection system of grandwater tax is used Self Assessment.
6. The obstacle in this research s the potentioal of groundwater tax can't be measure because there are no resources to do some surveys to check the unregistrated tax payor or business.

V. ACKNOWLEDGMENTS

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