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Research Article

Determinants Of Tax Revenues and Human Development Index in Indonesia

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ABSTRACT

This research is motivated by curiosity about the relationship between taxation and the Human Development Index.Taxes are one of the most important sources of government revenue for development financing, one of which is human development. The purpose of this study is to find out the extent of the relationship between taxation and the human development index. The samples used came from 30 provinces in Indonesia The method used in this study was quantitative descriptive analysis. Secondary data from 1991 to 2021 were used and analyzed using the Eviews application 12 The results of the study concluded that variables such as interest rates, tax ratios, working-age population, and exports affect tax revenues both in the short and long term

Keywords: *Exports, Human development index, Interest rate, Number of working-age population, Tax ratio*

Introduction

Government revenues in this case taxes are used to finance national development, including human development. After Indonesia's tax reform on taxation, Law No. 6 of 1983 amending Law No. 16 of 2009 showed an increase in revenue according to government income. Tax revenues will increase as GDP increases. In 2022, tax revenue will reach IDR 1.634,4 trillion or 110.1% based on the target achieved.

Some of the component that affect tax revenue are the amount of labor, poverty, unemployment rate, tax rate, interest rate, oil price, exchange rate, imports and exports, and the number of an enterprises, and medium-sized industries, due to limited time, data & working energy, it is limited such as interest rates, tax rates, working-age population & exports Government revenues in this case taxes

are used to finance national development, including human development. After Indonesia's tax reform on taxation, Law No. 6 of 1983 amending Law No. 16 of 2009 showed an increase in revenue according to the government's tax department.

Tax revenues will increase as GDP increases. In 2022, tax revenue will reach IDR 1,634.4 trillion or 110.1% based on the target achieved. This is supported by various tax policies that can increase tax revenue

Some of the factors that affect tax revenue are the amount of labor, poverty, unemployment rate, tax rate, interest rate, oil price, exchange rate, imports and exports, and the

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number of small and micro enterprises. And medium-sized industries, due to limited time, data & working energy, are limited in news such as interest rates, tax rates, working-age population & exports.

Literature Reviews

Tax

Ray M. Sommerfield, and Herschel M. Anderson argue that a tax is the result of the transfer of the origin of power according to the sector to the public sector, which is not the output of acts against the rules but must be done before the -conditions that are affected without an exclusive and immediate commensurate bonus so that the government can fulfill its responsibility to run the government (Mardiasmo, 2018). Mark revealed in his book "Das Kapital" to impose income tax in a several levels, for example, Adam Smith stated about the principle of taxation. The study "Analysis of the Impact of Regional Taxation on the Human Development Index" concluded that regional taxation has impact a positive on the human development index (Saragih, 2018). Another study titled "Time Series Analysis of the Impact of Taxation on Economic Development in Nigeria", yang states that tax revenues have a positive impact on the human development index (Akani, Ikebujo & Ogechi, 2016). The study "Analysis of Factors Affecting the Human Development Index in Regions/Cities in East Nusa Tenggara Province, Indonesia" shows that taxation has a positive impact and significant on Human Development Index (Yanseni and Marhaeni, 2019). Another study entitled "An Empirical Analysis of the Impact of Tax Revenues on Economic Development in Nigeria" shows that tax revenues have a positive impact on economic development, especially human development (Human Development Index) (Grace, David and Oliver, 2016).

Interest Rate

According to the Financial Services Authority, an interest rate is compensation offered by a bank to people who buy or sell their products. According to Keynes, interest is a monetary phenomenon. This means that supply and demand affect interest rate. The interest rate affects economic activity Gross Domestic Product.Related research such as "*The impact of exchange rates on tax revenue development in Kenya"* states that interest rates are negatively related to tax revenues (Rutto, 2020). Furthermore, the study "Inflation Rate and Exchange Rate Added Tax Revenue on Pratama Medan Timur's office " the study state that the interest rate has impact a significant on the import sales tax in East Medan Pratama's office (Yanseni and Marhaeni, 2022). Similar to the research "The Effect of Exchange Rate Fluctuations on Tax Revenues" Presentation in Sharana South Africa. It is stated that the tax revenues are affected by interest rates (Isaac, Camara and Peter, 2021). Similarly, the study "Inflation, Rupee Exchange Rate and Income Tax Revenue Interest at the Directorate General of Taxes" concluded that interest rates have effect a positive but do not have a significant impact on tax revenues (Intan and Merliyana, 2020).

Tax Ratio

The tax ratio is a comparison of collective tax revenues over a certain period with the gross domestic product during the same period in which Gross Domestic Product is service and the value of goods in a country minus the value of goods and services used in production. Indonesia's tax ratio reaches 10.4% in 2022 based on the tax rate of 9.11% in 2021. At the same time, the advantage of the tax ratio is that it is possible to roughly understand the proportion of taxes in the national economy.

The tax ratio study "Tax Ratio Analysis and Efforts to Increase Tax Ratio in Indonesia" found that the tax ratio affects tax revenue (Purnomolastu, 2021). and ITB Permanent Employee Ahmad Dahlan" concluded that the tax ratio affects the increase in tax revenue (Harun, 2021) and economic growth affects government tax revenue (Wirawan, 2020).Research related to tax ratio, namely "The *Analysis of Tax Ratio in Indonesia and The Steps Taken To Increase It*" .The study that the tax ratio affects tax revenues (Purnomolastu, 2021). Furthermore, "Analysis of the Tax Ratio of Income and Consumption Patterns of ITB Lecturers and Permanent Employees Ahmad Dahlan " concluded that the tax ratio affects an increase in tax revenue (Harun. 2021). In addition, the research entitled "Optimal Tax Ratio and

Economic Growth Rate in Indonesia in 1970-2008" states that the optimal tax ratio and economic growth rate affect state tax revenues (Wirawan , 2020).

Number of Working Age Residents

The data from the Central Statistics Agency (BPS), Indonesia's labor force is expected to increase to 144.01 million in 2022. This number is equivalent to 69.06% of the total working-age population, which is 208.54 million people. According to the BPS definition, a "working-age resident" is a resident who is 15 years of age or older. The "labor force" is a resident who works or has a job but is temporarily unemployed and unemployed. The largest workforce is in the age group of 25-29, which is 17.18 million people, the 30-34 aged was followed by 16.89 million and 35-39 aged about 16.78 million people. The labor force group aged 15-19 years is the smallest at only 5.98 million people. There are 16.26 million workers over the age of 60. Research on the number of working-age populations, such as "*The Employment Effect of The Earned Income Tax Credit: Taking the Long View"* states that the number of employees has an impact on tax revenue (Whitmore and R, 2020). Further research entitled "Analysis of the effect of the Gross National Product, Inflation, Exchange Rate and Labor on Tax Revenues in Cilacap, Banyumas, Purbalingga, Kebumen and Purworejo Regencies" states that partially labor affects tax revenues (Mispiyanti and Neni, 2017). Likewise, the study "Analysis of Factors Affecting Business Tax on 21 Pratama Binjai 's Office" states that the number of people of working age affects tax revenue (Nurhabibah, Nurmalasari and Astuty, 2021).

Export

According to Amir M.S, export means taking goods from public circulation and sending them abroad in accordance with government regulations and expecting payment in foreign currency. Export is the delivery of goods outside the Indonesian customs territory (Kobi, 2011). From the various definitions of export above, the author can conclude that export is the activity of sending goods from the Indonesian customs area to the customs area of another country with certain rules about goods and their transportation system.

The study "Analysis of the Effect of Export-Import on Domestc revenue in Indonesia in 1990-2019" stated that export and import variables had a positive effect on domestic income (Rahmawati and Melanie, 2022). The export tax revenues are affected by the export value of iron ore and mineral fuel (Tonny and Fredy, 2013). This is in accordance with research on factors affecting VAT and VAT the luxury good tax revenues which states that export and import variables have impact a significant on VAT and VAT the luxury good tax revenues (Masyitah, 2019).

Human Development Index

This Human Development Index was first published in the Human Development Report in 2004 and continues to this day. "*A process of enlarging people's choices* "is defined by Human Development. The most important aspects can be derived from longevity and healthy living., an adequate level of education and an adequate standard of living. The four main components of human development, namely productivity, equity, sustainability and empowerment (UNDP, 2004), humans are not only objects of development but also subjects who make useful contributions to the progress of the country. According to research "*an Analysis of Local Tax Revenue's Effect* on Human Development Index" it was concluded that local tax revenues have a positive and significant effect on the Human Development Index (Habsy, 2018). In addition, the study of the "*Tax Revenue, Economic Growth And Human Development Index in Nigeria*, " shows that tax revenues have a positive and significant effect on the Human Development Index" (Okoeguale Ibaden and Oluwatuyi, 2021). Another study " *Tax Revenue and the Human Development Index of west African Commonwealth Countries* " showed a positive and significant direct relationship to the human development index. And when the relationship is indirect, tax revenues have impact a negative and significant on the Human Development Index (Onyekachi, Nwakaego, and Marcellinus, 2021). Another study "Analysis of Factors Affecting Business Tax on 21 Pratama Binjai's Office" states that the number of people of working age impact tax revenue (Nurhabibah, Nurmalasari and Astuty, 2021).

Methods

Data Sources and Research Variables

This study using a secondary data taken from the official website of the Central Statistics Agency. The data that will be collected are data on the realization of tax revenues, tax rates, interest rates, the number of labor ages, import exports of all Indonesian provinces in 1991-2021. In this study there are 6 variables, namely 4 free variables such as interest rates (X_1), tax rates (X_2), working-age residents (X_3), and exports (X_4), intermediate variables, namely tax revenue. (Y) and one bound variable is the Human Development Index (Z).

Analysis Methods

This study using the Ordinary Least Square method for multiple linear regression analysis to test the impact of tax revenues on the Human Development Index. The analysis data passed the stationarity at the *first difference* level, which is a classical acceptance test to determine the distribution of data, which consists of normality, an autocorrelation, the multicollinearity, and the heteroscedasticity.
The systematics of a research is as follows:

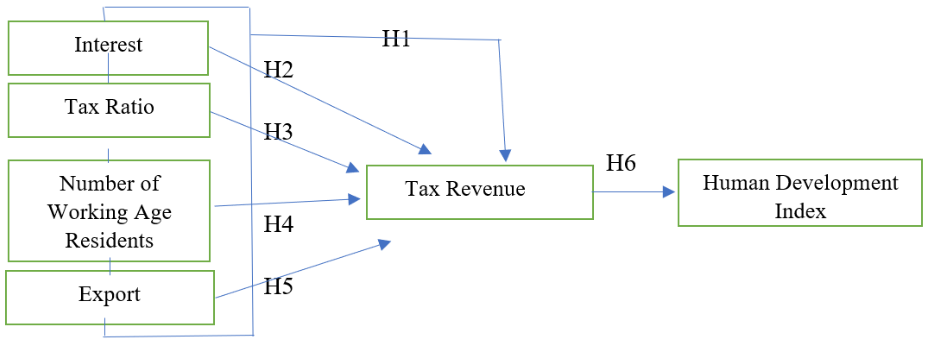

Figure 1. Research Framework Chart

The influence of independent variables on dependent variables was analyzed by regression and written in the equation is as follows as

$$\boxed{Y = a + b1\,Lnx_1 + b2\,Lnx_2 + b_3\,Lnx_3 + b_4\,LnX_4 + e} \quad \text{......(1)}$$

$$\boxed{Z = a + b\,LnY} \quad \text{.......(2)}$$

Description:
Y : Tax revenue
X_1: Tax ratio
X_2: Genus bunga
X_3: Number of working age population
X_4: Export
Z: Human Development Index
a and b are constants

Results and Discussion

This study has qualified by conducting stationary tests on *first difference* and classical assumption tests, multicollonierity, heterochedasticity, and autocorrelation. Furthermore, a cointeggation test was carried out.

a. Stationerity Test

In the stationery tests, the research variables have qualified at the first *difference level.*

Table 1. Test Stationer ADF (first difference level)

Series	Prob	Was	MaxLag	Obs
D(HDI)	0.0000	0	7	31
D(Tax_revenue)	0.0001	0	7	31
D(Exchanges_rate)	0.0000	0	7	31
D(Tax_ratio)	0.0108	6	7	31
D(Number _of _working-age _residents)	0.0000	0	7	31
D(Export)	0.0001	0	7	31

Source: Output Eviews 12 (2023)

From the table above, it shows that all variables have been stationers at the *first difference* level, so that a cointegration test can be carried out.

b. Cointegration Test

The cointegration test indicates the is of a long-term and short-term relationship. In this study conducted with the Johansen Cointegration test.The test results showed the following:

Table 2. Cointegration Test

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.819800	119.1408	69.81889	0.0000
At most 1 *	0.636605	71.15765	47.85613	0.0001
At most 2 *	0.498068	42.81420	29.79707	0.0009
At most 3 *	0.399091	23.51409	15.49471	0.0025
At most 4 *	0.281419	9.253344	3.841465	0.0024
At most 5 *	0.411179	1.611.862	1.549.471	0.0402

Trace test indicates 6 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Own Statistic	0.05 Critical Value	Prob.**
None *	0.819800	47.98320	33.87687	0.0006
At most 1 *	0.636605	28.34345	27.58434	0.0399
At most 2	0.498068	19.30011	21.13162	0.0885
At most 3	0.399091	14.26074	14.26460	0.0501
At most 4 *	0.281419	9.253344	3.841465	0.0024
At most 5 *	0.411179	1.611.862	1.549.471	0.0402

Max-eigenvalue test indicates 4 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values
Source : Output Eviews 12 (2023)

From the table above, it shows the results of the *Johansen Cointegration* test which is used to determine the existence of a cointegration. The test results showed that the *Trace Statistics* value of 119.1408 was greater than the critical value of 69.81889 with a significance level of 5%. Likewise, the maximum *eigenvalue* of 47.98320 is greater than the critical value of 33.87687 with a significance value of 5%. This suggests that there are cointegration long-term relationships between variables in the equation model.

c. Long-Term Regression Test (OLS)

It is done to find out the stake of the variable free and variable bound in the long term. The following are the results of long-term estimates of variable tax ratios, interest rates, the number of labor force, exports and imports against tax revenues using the first difference level OLS test:

Table 3. The Results of Estimation of OLS Variable X to Y

Dependent Variable: Tax-Revenue
Method: Least Squares
Date: 02/05/23 Time: 13:26
Sample: 1 31
Included observations: 31

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	9.433.506	1.739.610	5.422.770	0.0000
Interest	-1.258.012	0.303713	-4.142.100	0.0003
Tax ratio	0.527554	0.455902	1.157.165	0.2577
Number of working-age residents	0.579315	0.199976	2.896.924	0.0075
Export	0.669719	0.093946	7.128.727	0.0000

Source:Output Eviews 12 (2023)

From the table that in the long run the probability for variable interest rates 0.0 003, *tax ratio* 0.2577,total working-age population 0.0 75, exports about 0.000 . So the equation is as follows:

$$\mathbf{Y = 9,433,506 - 1,199,826}\ X_1 + \mathbf{0.527554}\ X_2 \mathbf{+0.579315}\ X_3\ \mathbf{+ 0.669719\ X}\ 4 + e$$

The equation, it can be said that the variables of the tax ratio variable, the number of people of working age and the output or have a positive and significant effect on the variables of tax revenue. Meanwhile, the variable interest rate negatively affects tax revenues.

Furthermore, the results of the OLS test for tax revenue variables against the Human Development Index are as follows:

Table 4. Results of Estimation of OLS Variable Y to Z

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.497.424	0.386974	6.453.724	0.0000
Tax revenue	0.890852	0.079017	1.127.412	0.0000

Source:Output Eviews 12 (2023)

From the table above, it shows that the tax revenue variable has a positive and significant effect on the Human Development Index in the long term. We can see that the amount of the tax revenue variable is 0.000 < 0.05 so the equation is :

Z= 2,497,424 + 0.890852 (tax revenue)+e

d. Short-Term Regression Test of ECM (Error Correction Model) method

Used to determine the effect of free variables on bound variables in the short term and their rapid adjustment for Long-term Balance Return.

Table 4. The Result of Estimation of OLS Variable X to Y

Dependent Variable: D (Tax_Revenue)
Method: Least Squares
Date: 02/05/23 Time: 22:13
Sample (adjusted): 2 31
Included observations: 30 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.417041	0.166706	2.501.658	0.0196
D(Interest rate)	-1.060.872	0.267428	-3.966.949	0.0006
D(Tax ratio)	0.765541	0.277235	2.761.347	0.0109
D(Number of working-age population)	0.350028	0.125875	2.780.757	0.0104
D(Export)	0.453277	0.098146	4.618.381	0.0001
ECT-01	0.444585	0.158734	2.800.818	0.0099

Source : Output Eviews 12 (2023)

From the table it can be seen that the variables of interest rates, tax ratios, the number of working-age people and exports affect tax revenues in the short term. This can be seen from the significance of the interest rate of 0.0006 < 0.05, *tax ratio* of 0.0109 < 0.05, the number of working-age population of 0.0104 < 0.05 and exports of 0.0001 < 0.05.

Table 5. The Results of Estimation of OLS Variable Y to Z

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(Tax revenue)	1.079.016	0.111622	9.666.665	0.0000
ECT_01	1.034.898	0.129945	7.964.126	0.0000
C	-0.030909	0.032000	-0.965914	0.3427

Source: Eviews 12 output (2023)

From the table on shows that the value of the significance of the tax revenue variable is 0.000 or less than 0.05. This means that there is a short-term relationship of the revenue variable taxes to the Human Development Index.

e. Statistical Test t

Used to test the effect of each independent variable on its dependent variables. If t counts > t the table then H0 is rejected and it can be said that the dependent variable has an effect on the dependent variable. If t counts < t the table then H0 is accepted ,meaning that there is no real influence of the independent variable on the dependent variable. The results of the statistical t test are as follows:

Table 6. Partial Test Results (Statistical Test t) Variable X to Y

Dependent Variable: Tax-Revenue
Method: Least Squares
Date: 02/05/23 Time: 13:26
Sample: 1 31
Included observations: 31

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	9.433.506	1.739.610	5.422.770	0.0000
Interest	-1.258.012	0.303713	-4.142.100	0.0003
Tax ratio	0.527554	0.455902	1.157.165	0.2577

Number of working-age population	0.579315	0.199976	2.896.924	0.0075
Export	0.669719	0.093946	7.128.727	0.0000

Source : Output Eviews 12 (2023)

From the table above, it can be explained as follows:

1. The effect of interest rates on tax revenues
2. Judging from the results of the regression analysis of the data, t count is -4.142. 100, the table t value is 1.706 which means that the table t value is smaller than the calculated t, with the value the probability is 0.0 003 which is less than 0.05 then H0 is accepted. It can be said that interest rates negatively affect tax revenues significantly.
3. The effect of a tax ratio on tax revenue
4. In the table the results of t test, a calculated t value of 1.157.165 t values of 1.706 is obtained, which means that t count is smaller than t count with a probability value of 0.2577. It is greater than 0.05 then H0 is rejected. This means that the tax ratio variable has impact a positive but not significant on tax revenue variable.
5. The effect of the number of a working-age residents on tax revenues.
6. In the table above, we can see the calculated t value of 2.898.924, the table t value of 1.706 which means that t count is greater than t of the table with a probability value of 0.0 075. It is smaller than 0.05, then H0 is accepted. It is said that the number of working-age residents has a significant positive effect on tax revenues.
7. The effect of exports on tax revenues
8. In the table above H0 is accepted because the result of t count of 7.128.727, the value of t table 1.70 6 which means the t count is greater than the t table with its probability value of 0.000 which is smaller than 0.05. This means that export variables have impact a positive and significant on tax revenues.

Table 7. Results of Estimation of OLS Variable Y to Z

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.497.424	0.386974	6.453.724	0.0000
Tax revenue	0.890852	0.079017	1.127.412	0.0000

Source:Output Eviews 12 (2023)

From the table above, it is seen that t count is 1.127.412 ,table t value is 1.69726 which means that the calculated t value is smaller than t table with a probability value of 0.000 which means smaller than 0.05, then H0 is accepted. It means that tax revenues have a positive and significant effect on the Human Development Index.

f. Simultaneous Test (Test F)

Used to find out whether independent variables together affect the dependen variable.

Table 8. F Test Results

R-squared	0.912884	Mean dependent var	5.212.291
Adjusted R-squared	0.899482	S.D. dependent var	1.029.468
S.E. of regression	0.326389	Akaike info criterion	0.745234
Sum squared resid	2.769.767	Schwarz criterion	0.976522
Log likelihood	-6.551.123	Hannan-Quinn criter.	0.820628
F-statistic	6.811.337	Durbin-Watson stat	1.094.117
Prob(F-statistic)	0.000000		

Source:Output Eviews 12 (2023)

From the table above the calculated F value of 6.811.337 universe F table with a rate of a=5% of 2.742594 with a probability value of 0.000000 which is less than the significance level of 0.05 so H0 is rejected. This means that the variables of interest rates, tax ratios, number of working-age population, exports, and tax revenues affect the Human Development Index so that the regression model is used to predict dependent variables.

g. Determination Analysis (R- Square)

The coefficient of determination (Adjusted R-Square) is used to measure how far the model's ability in research is to explain the variation of its dependent variables.

Table 9. Determination Test Results (R_2)

R-squared	0.912884	Mean dependent var	5.212.291
Adjusted R-squared	0.899482	S.D. dependent var	1.029.468
S.E. of regression	0.326389	Akaike info criterion	0.745234
Sum squared resid	2.769.767	Schwarz criterion	0.976522
Log likelihood	-6.551.123	Hannan-Quinn criter.	0.820628
F-statistic	6.811.337	Durbin-Watson stat	1.094.117
Prob(F-statistic)	0.000000		

Source: Output Eviews 12 (2023)

Based on the results above, the number R-Adjusted R-Square (R^2) is 0.899482. This shows that the percentage of contribution of the influence of independent variables on dependent variables is 89.94%. This means that the independent variables used in this study were able to explain 89.94% of the dependent variables. The remaining 10.06 % is influenced by other factors outside the regression model in this study.

Discussion

Effect of Exchange Rates on Tax Revenues

The results of the regression analysis, it can be determined that the impact of interest rates on tax revenues is positive but not significant. Because that when the interest rate increases by one unit, it will result increase but not significant tax revenues. This is inconsistent with interest rate theory, because interest rates influence an individual's decision on the choice to spend more money or keep their money in savings. On the one hand, an increase in interest rates will increase investment. People's desire to save so that banking funds increase, on the other hand, people's interest in making investments decreases. Conversely, if interest rates are low, it will encourage people's interest in investing, opening a business that will increase tax revenue. This is in line with a study titled "*Effect Of Exchange Rates On Tax Revenue Performance in Kenya"* which states that interest rates have a negative relationship to tax revenues (Ruto, Nalyanya and Byarunghanga, 2020).

Effect of Tax Ratio on Tax Revenue

The results of the regression analysis, it shows that there is a significant influence of the tax ratio on tax revenue. The *tax ratio*, the greater *the* tax revenue. Vice versa If Indonesia's economic condition is weakening The existence of a decrease in demand and weakening commodity prices can make the economy sensitive to fluctuations in market prices international so that it has an effect on low tax revenues. There are still many working-age residents who do not have Taxable Entrepreneur Identification Number, the number of MSME entrepreneurs who have not been confirmed as taxable entrepreneurs and tax regulations that are not optimal in providing justice, legal certainty, simplicity and support of increasing tax revenues. Regarding tax revenue in order to enhancement the tax *ratio*, a country must include elements of tax revenue from the regions, not only central tax revenues. In addition, the expansion of the number of taxpayers, the policy of reducing the group of goods and services that are free of VAT, increasing the efficiency of restitution mechanisms and VAT audits that are not optimal, involves public participation in supervision, synchronization between monetary and fiscal policies and evaluation of the imposition of export and import taxes and tax holidays for *pioneer industry.* This is in line with a study entitled "The *Analysis of Tax Ratio in Indonesia and The Steps Taken To Increase It"* which states that *the tax ratio* affects tax revenues (Purnomolastu, 2021). Therefore, various kinds of policies that support and prevent leaks need to be carried out so that tax revenues can be optimal.

Effect of The Number of Working Age Population

The results of regression analysis, it shows that the number of working-age residents has a positive and significant effect on tax revenues. This means that the number of working-age people has increased, so tax revenues will increase as well. Vice versa, if there is a decrease in the number of working-age residents, tax revenues will decrease. Hal this is in line with a research entitled also entitled "Analysis of Factors Affecting Income Tax Revenue 21 Agencies at the Binjai Primary Tax Office " states that the number of working-age residents affects tax revenues(Nurhabibah, Nurmalasari and Astuty, 2021). In accordance with the Classical theory of growth pioneered by Adam Smith, David Ricardo, Maltus and John Stuart Mill that the increase in the number of inhabitants will increase the per capita income due to the addition of the number of people of productive age in the economy. Based on the results of this and previous studies, if it is going to increase tax revenue then the government must consider the number of working-age people available with employment there is.

Effect of Exports on Tax Revenues

The results of the regression test, it can be seen that there is a positive and significant influence between exports and tax revenues. This means that any increase in exports will increase tax revenues. This export activity will be seen in a country's trade balance as a result of international trade. Because this export activity involves many exporters, transportation services, parties who have the authority to make procedures that must be carried out. This research is in line with the previous research "Analysis of the Effect of Export Import on Domestic Revenue in Indonesia in 1990-2019" concluded that export and import variables have an effect positively towards domestic acceptance(Rahmawati and Melani, 2022). The increase in the number of exports will increase the amount of state revenue in terms of taxes. The government can do so by subsidizing tax breaks, transportation rates, ease of obtaining low-interest credit.

Effect of Tax Revenue on Human Development Index

The results of the regression analysis above, it is said that the variable tax revenue has impact a positive and significant on the Human Development Index. During 1991-2021, the average provincial Human Development Index was 74.47% which stated that Indonesia's Human Development Index was already in the middle category for human development. To achieve this target, contributions from state tax revenues are needed. The effectiveness of the implementation of tax reforms that cause tax revenues can be achieved which ultimately has the significant effect of tax revenues on Human Development Industry. This is in line with a study entitled, "*Empirical Analysis of Effect of Tax Revenue on Economic Develompent of Nigeria*" states that tax revenue has a positive effect on economic development, especially human development (Human Development Index) (Grace, David and Oliver, 2016)(Grace, David and Oliver, 2016)

Conclusion

Based on the data analysis, it can be said that interest rates, tax ratio, the number of working-age residents, exports together have effect a significant on tax revenues both in the long and short term. Tax revenues have impact a significant on the Human Development Index. Interest rates have impact a negative and significant on tax revenues. Tax ratio has impact positive and insignificant on tax revenue. The number of working-age residents has impact a positive and significant on tax revenues. Exports have a positive and significant effect on tax revenues and income tax have impact a positive and significant on the Human Revenue Index.

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