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# The Effect of Aggregate Expenditure on Gross Regional Domestic Product and Implications for Human Development Index in South Solok District,

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**ABSTRACT** This research is motivated by the existence of aggregate expenditure that increases the human development index which is quite low. The data used in this study were collected from secondary data in the form of time series data from 2015-2019. The analysis used is a simple and multiple regression analysis with the Iso . technique The results of the study indicate that there is a significant effect simultaneously and partially based on aggregate expenditure on gross regional domestic product in South Solok Regency. the influence of regional gross domestic product on the human development index

**KEYWORDS** Agregat output; product domsestic regional bruto; the human development index

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## INTRODUCTION

South Solok Regency is a regency located in the eastern part of West Sumatra Province. This regency was officially expanded from Solok Regency in 2004 covering an area of 3,346.20 km<sup>2</sup>.

In the current macroeconomic analysis, aggregate expenditure in the economy includes government spending and exports. Meanwhile, according to Sadono Sukirno (2010, p. 258), aggregate demand is divided into 5 components, namely household consumption, private and government investment, export and import government spending.

A person's consumption expenditure is part of the income spent. According to Sadono Sukirno (2010, p. 38), the value of spending carried out by households to buy various types of needs in a certain year is called household consumption expenditure.

Wagner's empirical observations in Dumairy (2004, p. 161), show that government activity in the economy tends to increase. Wagner measured it from the comparison of government spending to national product. Peacock and wasiman in Dumairy (2004, p. 163), suggest income in explaining the behavior of the development of government spending.

Investment is the first step in production activities. With such a position, investment is also essentially the first step in economic development activities. The dynamics of investment affect the high and low economic growth, reflecting the rampant sluggish development. In an effort to grow the economy, each country always tries to create a climate that can stimulate investment. The intended target is not only the public or domestic private sector, but also foreign investors.

(Dumairy, 2004, p. 132). Net exports according to Mudrajad Kuncoro (2013, p. 31), are exports minus imports. Furthermore, Sadono Sukirno (2010, p. 222), states that exports are mainly determined by the relative prices of domestic goods in foreign markets, the ability of domestic goods to compete in the world market, and the taste of residents in other countries towards the goods produced by a country. While the import of a country is influenced by the income level of the community. The higher the income, the more imports will be made.

South Solok Regency is an area that has a Gross Regional Domestic Product and an increasing economic growth rate. This can have an impact on several aspects of life, especially in terms of social aspects in terms of the Human Development Index (HDI).

Becker and Posner (2007, p. 8), state that HDI is very often introduced as a measuring purpose to assess and compare all countries. In recent years, South Solok's HDI has continued to increase. The increase in HDI indicators is generally due to development programs that have been carried out by the Regional Government and received support from all levels of society for development programs that have been carried out by the Regional Government. The development of the Human Development Index (HDI) in South Solok Regency for the period 2015 to 2019 can be seen in the table as follows:

| kota        | Human Development Index |       |       |       |       |
|-------------|-------------------------|-------|-------|-------|-------|
|             | 2015                    | 2016  | 2017  | 2018  | 2019  |
| South Solok | 67.09                   | 67.47 | 67.81 | 68.45 | 68.94 |

Based on the background of the problem, the researcher took the title of this study, namely: "The Effect of Aggregate Expenditure on Gross Regional Domestic Product and Its Impact on the Human Development Index, in South Solok Regency".

In connection with the background mentioned above, the problem can be identified as follows:

1. There is consumptive behavior among the people of South Solok Regency. This is shown by the pattern of GDP growth is still characterized by consumption driven growth where growth is dominated by public consumption.
2. Government consumption is growing very progressively, especially for employee spending.
3. The increase in the Human Development Index (HDI) in South Solok Regency is still quite low, so policies and programs are still needed that can immediately increase the HDI.

## METHODS

This research is a development of existing models, where so far to predict Gross Regional Domestic Product through the aggregate expenditure approach in the economy only uses one to three components, but in this study the factors that affect Gross Regional Domestic Product (GDP) include 4 (four) components. In addition, so far regional welfare has been measured by the growth rate of GDP, so through this study the author developed it with the Human Development Index (HDI).

This research is based on the Grand Theory of aggregate expenditure in an open economy as proposed by Harrod Domar (Sadono Sukirno, 2010, p. 209). According to this theory aggregate expenditure consisting of household consumption, government consumption, investment and net exports is a key element in the growth of a country or region. Through this theory, it is hoped that an

appropriate and sustainable Indonesian development strategy can be obtained so that it will be able to increase Gross Domestic Product. High and sustainable growth is a positive condition for improving the Human Development Index.

## RESULT

### Economic Growth and Economic Development

Economic growth is related to the increase in per capita output and has a long-term perspective, where the economy is dynamic, experiencing changes or developments from time to time.

Economic growth is measured by an increase in national income per capita at the national economic level and by an increase in regional income (region) per capita at the regional economic level, Many factors influence the increase in per capita income, such as: population growth, investment, changes in the marginal ratio between output and capital, climate change and so on. In addition, economic growth is determined by investment multipliers and accelerators, as stated by Samuelson in Sumitro Djojohadikusumo who states that: "there is a reciprocal relationship between the multiplier factor and the accelerator principle. The effect of this reciprocal relationship is that multipliers and accelerators mutually reinforce their role in the course of the economy, strengthening the whole. People's demand is influenced by investment actions, and through multiplier factors brings additional income by multiplying. Effective demand can also be given a stimulant starting from consumer spending which then through the accelerator principle indirectly causes additional investment".

Economic development according to Sadono Sukirno (2010, p. 3), is defined as a series of efforts in an economy to develop its economic activities so that infrastructure is more widely available, companies are more and more developed, the level of education is higher and technology is increasing.

Meanwhile, according to Baldwin in Suryana (2000, p. 3) the definition of economic development is: "Economics development is a process whereby an economy's real national income increase on a long period of time. And if the rate of development is greater than rate of population growth, then per capita real income will increase". (Economic development is a process that causes the per capita income of the population of a society to increase in the long run. And if the level of development is higher than the rate of population growth, then real income per capita will increase).

Economic development indicators can be reviewed from the economic development of a country. According to Jhingan (2000, p. 5), economic development indicators are defined in 3 (three) ways:

1. Economic development must be measured in terms of a real increase in national income over a long period of time. But this is not a satisfactory definition.
2. The second definition, related to the increase in real income per capita in the long term. Economers argue the same in defining economic development in the sense of rising income or real output per capita.
3. There is another tendency to define economic development from the point of economic well-being. For example, economic development is seen as a process in which real national income per capita rises accompanied by a decrease in income inequality and the fulfillment of the desires of society as a whole.

Economic development is also defined as an increasing change in national production capacity. This increase is certainly reflected in economic growth, and economic growth indicators are reflected in the increase in real per capita income. As stated by Triyanto Widodo Suseno (1991, p. 35) that per capita income or income per person can be known by comparing the Gross Domestic Product (GDP) with the population at a certain time. Based on the description of the theory above, it can be stated that economic development is a process or series of efforts in an economy to develop a country's economic activities. Gross Domestic Product according to Sadono Sukirno (2010, p. 34), can be interpreted as the value of goods and services produced within the country in one particular one. In an economy, in developed countries as well as in developing countries, goods and services are produced not only by companies owned by residents of that country but by residents of other countries. It is always found that national production is created by factors of products originating from abroad. Multinational companies operate in different countries and help raise the value of goods and services produced by those countries. The multinational company provides capital, technology and expertise to the countries in which it operates. Gross Domestic Product (GDP) is the value of goods and services in a country produced by factors of production belonging to citizens of that country and foreign countries.

Gross Domestic Product as formulated by Sadono Sukirno, (2010, p. 35) as follows:

$$PDB = PNB - PFN \text{ from LN}$$

Source: Sadono Sukirno (2010, h. 35)

Where GNP is Gross National Product and PFN from LN is net factor income from abroad. PFN from LN is the income of factors of production received from abroad minus the income of factors of production paid abroad.

There are 3 (three) ways or approaches to calculate GDP, namely approaches from the aspects

of expenditure, income and production. All three calculation methods produce the same value/number. The basis of the calculation is that the final value of a good can be returned to the contribution of each input used, so that if the value of a good, that is, the price purchased by someone (said to be an expenditure), then that expenditure, will be equal to the value of the goods, and will be equal to the amount of production received by each factor of production used in making the good.

According to Tulus T.H. Tambunan (2009, p. 45), GDP can be measured by 3 (three) kinds of approaches, namely the production approach, the income approach and the expenditure approach. The first two approaches are the aggregate supply-side approach, while the expenditure approach is the calculation of GDP from the aggregate demand side.

According to Mudrajad Kuncoro (2013, p. 31), in the expenditure approach, GDP is all final demand components consisting of household consumption expenditures and private non-profit institutions, government consumption expenditures, gross domestic fixed capital formation or often called investment, inventory changes and net exports i.e. exports minus imports. GDP represents all government and public consumption, government spending, investment and exports minus imports within a given region.

$$PDB = C + G + I + NX$$

Source: Mudrajad Kuncoro (2013, h. 31)

Where:

C = all public consumption and consumer spending.

G = amount of government expenditure

I = production amount for capital goods

NX = net export i.e. export minus import (NX = Export - Import)

Based on the description of the theory above, it can be stated that Gross Domestic Product is the value of goods and services produced by a country in one year using production factors.

### Gross Regional Domestic Product

Domestic product according to Mudrajad Kuncoro (2013, p. 229) is all goods and services as a result of economic activities operating in the domestic area, regardless of whether the factor of production comes from or is owned by the inhabitants of the area.

According to Todaro (2000, p. 189), one indicator that can be used to explain the performance of a region's economic existence is the Gross Regional Domestic Product (GDP), which is the amount of added value created by various economic sectors including indirect taxes, in the formation of the GDP of each province can also describe the total added value created by regional economic sectors so that this situation can reflect the support of sectors towards the poor in earning income to meet their living needs. Gross Regional Domestic Product (GDP) describes the ability of a

region to create output (added value) in a particular region. (BPS, 2009, p. 541).

Gross Regional Domestic Product is divided into 2 (two) namely (Prathama Rahardja and Mandala Manurung, 2008, p. 203):

1. On the basis of prevailing prices

On the basis of prevailing prices are prices taken based on the prevailing market prices at the time without taking into account the effect of inflation.

2. On the basis of constant prices

Constant prices are prices determined based on the base year in which the economy is in good or stable condition. GDP on the basis of current prices describes the added value of goods and services calculated using prices prevailing each year, GDP on the basis of constant prices shows the added value of these goods and services calculated using prices prevailing in a given year as a basis. (BPS, 2009, p. 21)

Based on the description of the theory above, it can be stated that the Gross Regional Domestic Product is the value of goods and services produced by a region or region in one year.

### Human Development Index

Human Development Index according to Becker and Posner (2007, p. 8): "The HDI is very often presented as an objective measure by which to judge and compare all nations. So, even assuming the previous commenters are correct about the HDI's intended purpose, it has (predictably) been used in ways it was not intended." (The HDI is very often introduced as a measuring purpose to assess and compare all countries. Thus, assuming that the previous opinion is correct about the expected goals of the Human Development Index, the HDI has predictions that are used in certain unexpected ways).

The Human Development Index (HDI) according to Todaro (2000: 87) tries to rank all countries on a scale between zero (lowest human development achievement) to one (highest human development performance) based on 3 (three) criteria or development outcomes, namely survival measured based on life expectancy at birth, knowledge calculated based on the average level of literacy among the adult population (two-thirds weight) and the average number of years of schooling (weighted by one-third), as well as the quality of living standards measured by real per capita income adjusted for purchasing power parity (PPP) of the domestic currency in each country to better reflect the size of the cost of living and also to adjust to the fact of shrinking marginal utility of income above the world income level.

Yuyun Wirasmita (2008, p. 4), stated that the Human Development Index (HDI) indicator consists of:

1. Life expectancy.
2. Education.
  - a. Standard of Living.

The three-component index of HDI can be calculated by comparing the difference between the indicator value and its minimum determinant with the difference between the maximum and minimum indicator determinants, or briefly it can be written as follows (UNSFIRS in Mudrajad Kuncoro, 2013, p. 222) :

$$\text{Indeks } X(i) = [X(i) - X(i)\text{min}] / [X(i)\text{max} - X(i)\text{min}]$$

Source : Mudrajad Kuncoro (2013, h. 222)

Where:

$X(i)$  = to-i indicator (i = 1,2,3)

$X(i)\text{max}$  = Maximum Value

$X(i)$   $X(i)\text{min}$  = Nilai Minimum  $X(i)$

Based on the above procedure, HDI can be calculated by the following equation:

$$\text{HDI} = 1/3 [X(1) + X(2) + X(3)]$$

Sumber : Mudrajad Kuncoro (2013, h. 222)

Where:

$X(1)$  = Birth Life Expectancy Index

$x(2)$  = Education Index =  $2/3$  (literacy index ) +  $1/3$  (average length of school index

$X(3)$  = Decent Living Standard Index

The range between minimum and maximum values for indicators covered as HDI components is (UNSFIRS in Mudrajad Kuncoro, 2013, p. 223)

1. Birth life expectancy = 25 - 85 (UNDP Standard)
2. Literacy rate = 0 - 100 (UNDP Standard)
3. Average length of schooling = 0 - 15 (UNDP Standard)
4. Adjusted per capita consumption = 300,000 - 732,720

Based on the description of the theory above, it can be stated that the Human Development Index is an indicator used to measure or analyze the socioeconomic development status of a country.

### Household Consumption

Case and Fair (2004, p. 71), states that in each period (week, month, year etc.) households receive a certain amount of aggregate income (Y). In closed economic conditions, households can only do 2 (two) things to their income, namely households can buy goods and services, namely can consume them or save them.

According to Boediono (2005, p. 36), the production process generates income in society (i.e. for the household sector). Furthermore, income gives rise to effective demand in the goods market, i.e. effective demand for consumer goods by the home sector

Ladder. According to Keynes in Boediono (2005, p. 37), not all of this income will be spent on goods and services. For example, only 80% or 90% of it, while the rest (10% - 20%) will be saved. Keynes argued that every society had certain habits about how much of the household income was spent on goods and services (C) and how much was saved (S).

Especially for the form of short-term consumption function,  $C = a + cY$ , it is necessary to

distinguish two kinds of *propensity to consume*, namely:

1. *Marginal propensity to consume* (MPC) which is defined as changes in consumption expenditure caused by changes in income levels,

$$\frac{\Delta X}{\Delta Y}$$

or or c

$$\frac{\Delta C}{\Delta Y}$$

Source : Boediono (2005, h. 36)

2. *Average propensity to consume* (APC) is defined as the proportion of income spent on consumption.

$$\frac{C}{Y} = a + cY = \frac{a}{Y} + c$$

Source : Boediono (2005, h. 36)

For the long-term consumption function, of course  $MPC = APC = c$  MPC should have a value between 0 and 1 (so it cannot be greater than one or negative). The consumption function shows the macro behavior of all consumers (household sectors) in a country/region rather than the behavior of individual consumers as in the micro-demand function. indicates total consumption expenditure expressed in rupiah from the community and Y is the total income of the people (GDP, GNP, National Income or *Disposable Income*, depending on which is considered more suitable for each country).

In macroeconomic theory, various variations of the consumption function model are known. The best known consumption function is the Keynesian consumption function. Formulated in the form of:

$$C = f(Y) = C + c.Y$$

Source: Boediono (2005, h. 36)

According to Pratama Rahardja and Mandala Manurung (2008, p. 225), household consumption expenditure has the largest portion in total aggregate expenditure. Given the large portion, household consumption also has a major influence on economic stability. Household consumption is endogenous. In a sense, the amount of household consumption is closely related to the factors that are considered to influence it.

Based on the description of the theory above, it can be stated that household consumption is a variety of household final consumption expenditures on goods and services to meet the needs of individuals or groups directly.

### Government Consumption

Government spending is one element of aggregate demand. The concept of calculating national income with an expenditure approach states that  $Y = C + I + G + X - M$ . This formula is known as national income identity. The variable Y represents national income (in the broadest sense), while reflecting aggregate supply. While the variables in the right field are called aggregate requests. The variable G represents government expenditure. By comparing the value of G to Y and observing it over time, it can be known how much

government spending contributes to the formation of aggregate demand or national income. With that, it can also be analyzed how important the role of the government in the national economy. (Dumairy, 2004, p. 157).

According to Boediono (2005, p. 50), government expenditure is all purchases of goods/services made by the central government and local governments. Government expenditures are included only in the goods and services that constitute the production of the year in question. Government consumption is the purchase of goods and services to be consumed, such as paying school teachers' salaries, buying stationery and paper for use and buying gasoline for government vehicles. (Sadono Sukirno, 2010, p. 38).

Based on the description of the theory above, it can be stated that government consumption is government expenditure for employee spending, recruitment and goods expenditure including other routine expenses.

### Investment

Investment according to economics in Case and Fair (2004, p. 77), is something that is used to create future value. Investment always refers to the creation of capital stock. Investment is also defined as the purchase of new buildings and equipment and additional inventory by the company, which is arbitrarily added to the company's capital stock. Investment is a flow variable, which describes additions to the capital stock in a certain period. The company's decision on how much to invest each period is determined by many factors.

According to Sadono Sukirno (2010, p. 121), investment can be interpreted as the expenditure or expenditure of investors or companies to buy capital goods and production equipment to increase the ability to produce goods and services available in the economy.

According to Pratama Rahadja and Mandala Manurung (2008, p. 238), investment is a flow concept, because it is usually calculated during a certain period interval. But investment will affect the amount of capital goods available (capital stock) in one particular period. The additional stock of capital goods is equal to the investment expenditure of the previous quarter.

According to Yuyun Wirasasmita (2008, p. 5), the impact of overall investment can be approached with the concept of elasticity, namely:

$$\text{Elasticity I (Investment)} = \frac{\Delta \text{GDP} / \text{GDP}}{\Delta \text{I/I}}$$

Source: Wirasasmita (2008, p. 5)

If the elasticity is greater than one and does not encourage excess import growth, then the allocation of foreign loans is appropriate. The right allocation if most of the allocation is related to export growth.

Yuyun Wirasasmita (2008, p. 2), capital accumulation or capital formation refers to increasing the quantity of capital so as to produce more output. While the productivity factors of

capital refer to quality, which includes more efficient use of capital.

Based on the description of the theory above, it can be stated that investment is an expenditure to buy capital goods and production equipment to increase the ability to produce goods and services available in the economy.

### Net Exports

Export according to Sitarava Rizema Putra (2011, p. 9), is the process of transporting goods or commodities from one country to another. This process is often used by companies with small to medium business scale as the main strategy to compete at the international level.

According to Article 1 paragraph 9, Chapter I of Law No. 32/1964 in Hendra Halwani (2005, p. 468), export is the delivery of commodities outside the territory of Indonesia from circulation. Based on these provisions, it means that export carried out by a company or individual in the form of goods abroad for trade or export is an activity or business of sending goods abroad from a country or region to other countries or regions, either in a normal trade series or as a personal act.

Sadono Sukirno (2010, p. 209), states that net exports are the value of exports made by a country in a certain year minus the value of imports in the same period. A country's exports, all or part of its value, are goods and services produced within the country. Therefore the value must be calculated into national income. Imported goods are products from other countries, therefore they do not actually need to be calculated into national income.

Based on the description of the theory above, it can be stated that net exports are the value of exports of goods from a country in one year minus the value of imports of goods from other countries to that country in one year.

### Relevant Research Results

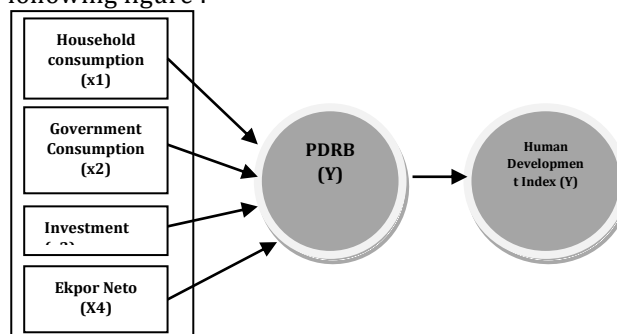
Research relevant to the research to be carried out:

| No | Research Title and Researchers  | Research Variable   | Research Methods   | Conclusion   |
|----|---|---|--|--|
| 1  | Effect of Demestic Products Gross (GDP) and Index Human Development (HDI) to Number Poverty in Indonesia, Muhammad S.W. | Free Variable: Domestic Product Gross (GDP) and Index Building The Man (IPM) Dependnt variable: | Analysis Kuantitati ve by Method <i>Random Effect Model</i> (REM) in the Data Panel with <i>the Times Year Series</i> 2006 - | Human Development Index (IPM) has the most dominant influence on the magnitude of poverty in |

|   |  |   |   |   |
|---|--|---|---|---|
|   | Suliswanto (2010)  | Number Poverty.   | 2008.                                       | Indonesia.HDI negatively affects poverty  |
| 2 | Amount Influence Analysis Population, GRDP, HDI, Unemployment against Poverty Rate in Java District/City Middle, Whisnu Adi Saputra (2011) | Free Variable: Population PDRB, IPM and Unemployment. Dependnt Variable: Level Poverty. | Analysis Methods Regress Linier Double with | HDI has a negative and significant effect on the level of poverty in Central Java |

### Research Paradigm

Based on the results of previous research, a research paradigm can be compiled as shown in the following figure :



### Model Formulation

The research model is prepared based on the production function of Cobb Douglas (Koutsoyiannis, 1975, p. 75) where the production factor in question is the contribution of each economic sector, as shown below:

1.  $PDRB = \text{function (Aggregate production consternence)} Y = f (X1, X2, X3, X4)$
2.  $\text{Human Development Index} = \text{function (PDRB)} Z1 = f (Y)$

The regression coefficient of the share of each aggregate expenditure to Gross Regional Domestic Product (GDP) shows the response to the human development index. Furthermore, to avoid specification errors, the above models need to be tested intensively by model pre-estimation, both through theoretical studies of factors that affect GDP that are relevant to GDP, HDI, and in-depth studies of problem phenomena in research. Research Hypothesis Based on the framework and

research model above, the hypothesis that the author proposes is as follows:

1. Aggregate Expenditure either simultaneously or partially affects the Gross Regional Domestic Product in South Solok Regency.
2. Gross Regional Domestic Product affects the Human Development Index (HDI) in South Solok Regency.

### Research Variables

Research variables according to Masri Singarimbun and Sofyan Effendi (2008: 42) are something that has value. In this study the author involved several variables, namely:

1. Independent Variable (X)  
In this study, the independent variables are: Household Consumption (X1), Government Consumption (X2), Investment (X3), and Net Export (X4).
2. Intermediate variable (y)
3. In this study, the variables between: Gross Regional Domestic Product (Y). c. Dependent Variable (Z) In this study the dependent variable is: Human Development Index (Z1).

Operational Definition of Variables Based on the types of research variables above, the following is described the operational definition of each variable as follows:

1. Household Consumption (X1) That is the value of expenditures or expenditures made by households to buy various types of household needs in one year.
2. Government Consumption (X2) That is the value of expenditures or expenditures made by the government to buy various types of government needs in one year.
3. Investment (X3) Namely the value of government gross fixed capital formation (government investment) and private gross fixed capital formation (private investment, namely PMDN and PMA) which includes the procurement, manufacture and purchase of capital goods in one year.
4. Net Export (X4) That is the value of exports made by a country in a given year minus the value of imports in the same period.
5. Gross Regional Domestic Product (Y) Is the value of goods and services produced or created in one year.
6. Human Development Index (Z1) is the average index of development progress or quality of human life from Literacy Rate (AMH), Life Expectancy (AHH), Average Length of LRS Schooling and Community Purchasing Power (DBM).

### DISCUSSION RESULTS Model 1 (Simultaneously)

The simultaneous influence of household consumption, government consumption, investment. That is the level of the number of people or poor people who have an average per

capita expenditure per month below the poverty line.

### Research Design

This study used an explanatory research design. Explanatory research according to Masri Singarimbun and Sofyan Effendi (2008, p 4) is a study to explain causal relationships and test hypotheses.

### Analysis Techniques

The analytical technique used to test hypotheses regarding factors affecting Gross Regional Domestic Product and their implications on the Human Development Index, is Simple and Multiple Linear Regression Analysis with the Ordinary Least Square (OLS) technique. To illustrate the multiple analysis, the regression model will then be estimated as follows:

$$Y_t = \beta_0 + \beta_1 X_{1t} + \beta_2 X_{2t} + \beta_3 X_{3t} + \beta_4 X_{4t} + \epsilon_t$$

Sumber : Suryadi (2012, h. 85)

Testing of the presence or absence of violations of these assumptions is carried out before the model output is analyzed. The assumptions tested include: Normality Test, Multicollinearity Test, Autocorrelation Test and Heteroscedasticity Test Simultaneous Effect of Household Consumption, Government Consumption, Investment.  $Y = 0.211 + 0.395.X1 + 0.350.X2 + 0.225.X3 + 0.234.X4 + \epsilon_1$

Based on the regression equation mentioned above, it appears that all variables have a positive relationship with Gross Domestic Product (GDP).

| Simultaneous Influence  | R     | p-Value        | Standar Error | R2     |
|---|-------|----------------|---------------|--------|
| Household Consumption, Government Consumption, Investment, Net Export | 0.815 | 0.000 (sig.5%) | 3.318000      | 66,50% |

R = 0.815 is the degree of closeness of the relationship of Household Consumption, Government Consumption, Investment, and Net Exports. It is statistically a very strong relationship. R2 of 66.50% means that the variable contribution of Household Consumption, Government Consumption, Investment, and Net Export is 66.50%, while the remaining 33.50% is determined by other variables which in this study are not included.



**Hypothesis accepted:**

There are simultaneous positive effects of Household Consumption, Government Consumption, Investment and Net Exports on Gross Regional Domestic Income.

| Simultaneous Influence | R     | p-Value        | Standar Error | R2    |
|------------------------|-------|----------------|---------------|-------|
| GRDP against HDI       | 0.665 | 0.000 (sig.5%) | 0,015         | 44,40 |

R = 0.665 means the degree of closeness of the relationship of Gross Domestic Product with the Human Development Index. R2 = 44.40% means that the contribution of GRDP with HDI of 44.40 while the remaining 55.60% is determined by other variables which in this research model are not included.

**Hypothesis 2 is accepted :**

There is a positive influence of GDP (Y) on HDI (Z1)

**Discussion**

Based on the results of the data processing mentioned above, the interpretation of the data can be put forward as follows:

**Model 1 Test Results.**

The regression results of the effect of household consumption, government consumption, investment and net exports simultaneously on Gross Regional Domestic Product (GDP) showed the results of R = 0.815 and R 2 of 0.665. This means that statistically the influence of variables household consumption, government consumption, investment and net exports simultaneously on Gross Regional Domestic Product (GDP) is 66.5% while the remaining 33.5% is influenced by other factors that are not taken into account (studied) in this model such as: interest rates, foreign exchange rates, security and others.

Household consumption coefficient (X1) in South Solok district = 0.309 units. Household consumption is highly dependent on the amount of income  $C = f(Y)$ , meaning that the higher the income, the higher the household consumption. The results of the regression coefficient are in line with the results of the t test (partial test) obtained calculated = 3.111000 > table 2.086.

Of the four aggregate expenditure variables, investment has the lowest influence on the Gross Domestic Product (GRDP) in Tangerang district. This is because there are still many investment barriers in South Solok district. The length of the licensing process, lack of infrastructure, damage to roads and bridges are factors that hinder investment.

The value of the net export coefficient of 0.234 increases by 1 unit, while household consumption, government consumption and investment are considered constant, thus increasing GDP (Yd) by 0.358 units.

An increase in total exports after reducing total imports will actually make a positive

contribution to the Gross Regional Domestic Product (GDP). This is in line with the opinion of Sadono Sukirno (2006, p. 125) who states that net exports (X-M) are the most important factor in increasing a country's income.

**Model 2 Test Results.**

The results of the regression of the influence of Gross Regional Domestic Product on the Human Development Index (Z1) showed R = 0.665 and R2 of 0.444. This means that statistically the influence of the Gross Regional Domestic Product (GRDP) variable on the Human Development Index (HDI) is 44.4% while the remaining 55.6% is influenced by other factors that are not taken into account (studied) in this study, such as: income level, community welfare, number of school-age population, Teacher to Student Ratio, Number of Medical Personnel, number of health facilities and infrastructure and others.

**CONCLUSION**

There is a significant influence of household consumption, government consumption, investment and net exports, both simultaneously and partially on the Gross Regional Domestic Product in South Solok Regency.

There is a positive and significant influence of Gross Regional Domestic Product on the Human Development Index / HDI in South Solok Regency. Gross Regional Domestic Product as an indicator of increasing economic growth is directly related to the Human Development Index.

To be able to increase GDP, it is recommended to the South Solok Regency Government, to be able to direct economic development policies by paying attention to the relationship between variables in aggregate expenditure, such as household consumption, government consumption, investment and net exports.

To improve the Human Development Index (HDI) it is recommended to the South Solok Regency Government to establish many educational institutions, especially vocational schools, build and improve health facilities and provide scholarships from elementary school to tertiary levels, health insurance for treatment both in clinics and hospitals.

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