POVERTY FACTOR ANALYSIS AND ECONOMIC GROWTH AGAINST THE INDEX HUMAN DEVELOPMENT (IPM) IN PADANGSIDIMPUAN CITY

Abdelina¹, Lilis Saryani²

¹,²Lecturers of the Development Economics Study Program, Graha Nusantara University
Padangsidimpuan
Corresponding Authors: abdelinapsp@gmail.com

Abstract - This research aims to learn about poverty in Padangsidimpuan City while also comparing the economy to the Human Development Index. This study is divided into two categories: research documents and library research (Library Research). The approach used in this research is a quantitative method that uses panel data and a fixed effect model; the measures in this study are secondary data collection from the Central Statistics Agency after data review. Based on the findings of the study, using the Fixed Effects Model Analysis method, a negative variable is generated on the Human Development Index in Padangsidimpuan City, when comparing the Economy associated with the Human Development Index in Padangsidimpuan City. Although poverty and published economics linked to the Human Development Index in Padangsidimpuan City are both visible.

Keywords: Poverty, economic growth, human development index

1. INTRODUCTION

Development is a critical component, especially for developing countries. The main key to realizing the ideals of national growth is equitable development. By comparing income and growth in different countries, it becomes clear that there is a significant disparity in determining the degree of prosperity between developed and developing countries. High quality human resources are needed to support the current development that is taking place. Mirza (2012), the development paradigm that is currently developing is economic growth as measured by human development as seen by the level of quality of human life. Lantouw in (Mirza, 2012) states that human development in Indonesia is synonymous with poverty reduction. Since the poor's main asset is their manual labor, investments in education and health are more meaningful for them than for the wealthy.

The elements of human capital and technology are determinants of economic development, according to Paul Romer's new growth theory (Winarti, 2015). The new growth theory emphasizes the importance of government in economic growth, especially in terms of improving the quality of human capital, namely by increasing the knowledge and skills of the community. Because this can encourage an increase in work productivity. The Human Development Index is one of the indicators in achieving economic development in the context of realizing a prosperous society and minimizing poverty. The Human Development Index has been introduced by the United Nations Development Program (UNDP) since 1950 and is published regularly in the annual Human Development Report (HDR). Human growth is the process of expanding a
person's options. The most valuable of these options is to live a long and stable life, to pursue a higher education, and to have access to the services necessary to live a decent life. (BPS Kota Padangsidimpuan, 2018).

The Human Development Index (HDI) is one of the indices used to assess the quality of human life. It is calculated using three indicators: educational attainment, health, and purchasing power (economy). It is hoped that the quality of human life would improve as a result of these three indicators. This is due to societal gaps in wage/benefit levels, regional inequalities, and different social factors, so that income levels are no longer the primary metric for estimating development success rates but the success of human development cannot be separated from the performance of the government which plays a role in creating regulations for the achievement of social justice. Government spending can also be used as a reflection of the policies taken by the government in one region.

Government spending is used to fund important public sectors that promote community welfare, one of which is being used as a priority for the government in achieving quality human resource growth in relation to HDI, which is expenditure in the education and health sectors, both of which are intended to improve the quality of human capital. quality of human resources and can reduce poverty. Education and health are fundamental goals of development. Health is welfare and education is an imperative in achieving a decent and valuable life, in this case both education and health, both of which are very important in shaping broader human capabilities which are at the core of the meaning of development (Todaro, 2003).

Padangsidimpuan City in the period from 2011 to 2018 experienced an increase in the Human Development Index which continues to increase. IPM Achievement Padangsidimpuan City in 2011 amounted to 71.08 to increase to 74.38 in 2018. With the HDI achievement, Padangsidimpuan in the position of human development status "high". Not only that, this achievement also brought Padangsidimpuan to the seventh position out of 33 districts / cities in the achievement of human development in North Sumatra. (BPS Kota Padangsidimpuan, 2018: 3). Looking at the BPS data, the Human Development Index in the City of Padangsidimpuan in 2018 is included in the "high" category.

The achievement of the Human Development Index, especially in the City of Padangsidimpuan, is inextricably linked to the economic growth factor; this is inextricably linked to the increase in human development, which is, of course, seen as a result of the area's economic growth. Economic development is often correlated with economic growth. Because with good economic growth, access to education, health will be accessible to the community in addition to costs issued by the government which will be in accordance with government revenues. Apart from good economic growth, poverty is also a factor that affects the Human Development Index, because poverty occurs due to the limitations of the community in fulfilling their daily needs so that health and education cannot be obtained, and will even be neglected by the community. Based on this explanation, it encourages researchers to conduct a study of the human development index in the City of Padangsidimpuan. The research topics raised in the study were: Analysis of poverty factors and economic growth on the Human Development Index in Padangsidimpuan City.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Concept of Human Development Index
According to the UNDP, human growth is a method of increasing the population's options for creating a valuable life. Something major in the creation of living humans is that humans will experience a life that is long and safe, trained, and has access to resources that are required for a life that is worthy. (Subri, 2003: 2). The purpose main of the development of man is creating the environment that allows for rack y ATNYA to enjoy the life of a long, healthy, and run the lives of the productive. IPM was formed by three basic dimensions, namely longevity and healthy life (a long and healthy life) , knowledge (knowledge) , and a decent living standard (decent standard of living) . (BPS Kota Padangsidimpuan, 2018: 5).

Beik, (2016: 147) Development Index claims Human is a composite index that measures a country's average achievement in three fundamental areas: life expectancy, Tertiary education, and a decent life. Life Expectancy at Birth measures how long people live and how well they are (UHH), which is the number of years that newborn babies are expected to live, assuming that the pattern of mortality by age at birth is the same throughout the life of the baby. Knowledge is measured through the indicators of Average School Years and Expectations for School Years. Average length of schooling (RLS) is the average length of time (years) for people aged 25 years and over to undergo formal education. Expectation of Old School (HLS) is defined as the length (years) of formal schooling that children are expected to experience at a certain age in the future. An adequate standard of living is described by adjusted per capita expenditure, which is determined by the value of per capita expenditure and purchasing power parity.

Mirza (2012: 3) HDI is calculated based on the geometric mean of the health index, the knowledge index, and the expenditure index. The calculation of these three indices is carried out by standardizing the minimum and maximum values for each component of the HDI index as indicators used to view developments in the long term. To see the progress of human development, there are two aspects that need to be considered, namely speed and status of achievement.

Based on the above discussion, it can be concluded that the Human Development Index is a comparative measure of life expectancy, literacy, education and living standards for all countries around the world. HDI is used to classify whether a country is a developed, developing or underdeveloped country and also to measure the effect of economic policies on the quality of life of the people.

**The Concept of Economic Growth**

Economic growth is an increase in gross domestic income regardless of the rate of population growth and changes in economic structure. According Sukirno (2011) economic growth is an economic activity that has evolved over time to - time that can cause changes in the real national income. The increase in real national income shows the percentage of economic growth in a certain year when compared to the previous year.

While Todaro (2003), The term "economic development" refers to a mechanism in which an economy's productive capacity expands over time in order to produce a higher level of income. Economic growth, according to Lincoln (1997), is characterized as an increase in GDP / GNP that is greater than or less than the population growth rate.Meanwhile, factors affecting economic growth, according to Todaro (2003), suggest (1) population and labor force growth, (2) capital accumulation, (3) technological progress. According to Sadono (2000) there are several tools to measure economic growth, namely: Gross Domestic Product and Per Capita Gross Regional Domestic Product.
Based on the above discussion, it can be concluded that economic growth is the process of changing the economic conditions of a country on an ongoing basis towards a better state during a certain period. Economic growth can also be interpreted as a process of increasing the production capacity of an economy which is manifested in the form of an increase in national income.

**The Concept of Poverty**

Poverty has many meanings, and the majority of them link the term to economic factors. Various attempts to describe and classify poverty have resulted in a simplistic mental model. To begin with, from a measurement standpoint, poverty can be divided into two, namely absolute and relative poverty. Second, from the point of view of causes, poverty can be grouped into natural and structural poverty. (Nurwati, 2008: 1).

According to Kuncoro (2000), Poverty is described as the inability to meet one's basic needs. Several metrics are used to measure a country's standard of living, including Gross National Product (GNP) per capita, national relative growth and per capita wages, national income distribution, and so on poverty, and social welfare. The low standard of living from living problems can be related to a low total income, lack of adequate housing, inadequate health services, low education and lack of employment resulting in lower quality human resources.

Based on the above discussion, it can be concluded that poverty is a condition in which there is an inability to fulfill basic needs such as food, clothing, shelter, education, and health. Poverty from a measurement point of view, poverty can be divided into two, namely absolute and relative poverty. Meanwhile, from the point of view of causes, poverty can be grouped into natural and structural poverty.

**3. METHOD**

The thesis falls under the category of library research (Library Research), which is research that is conducted using literature (literature). Download gumpulkan data or knowledge from books, cotes, newspapers, records, and other sources in a research library reference other yang related to the topic of the research were derived from the library or institution that is associated with the research data is needed. (Zed, 2004: 1).

Type of data that is used in research this is the kind of data quantitatively. Quantitative data is the data that presented in the form of figures unearthed by not directly through the results of research and the results of the processing of the data qualitatively into the data quantitatively. (Teguh, 2005: 118). Sources of data in this study were obtained from books, research journals and official reports on the Human Development Index in North Sumatra and Padangsidimpuan City by the Central Statistics Agency. The data collection technique in this research is by using documentation technique, which is a record of past events in the form of writing, pictures or published online.

Meanwhile, to test this hypothesis using multiple linear formula is the relationship between the variables bound (Y) with two or more variables free (X). To express strong or whether the relationship linear between X and Y can be measured coefficient of correlation (coefficient of correlation) or r and to determine the magnitude of the contribution (influence) X to Y can be seen from the coefficient of determination (coefficient of determination) or R² (Winarmo, 2015: 411). Shape equation regression linear multiple is as follows:

\[ Y = a + b_1 X_1 + b_2 X_2 \]

Where:
Y = Index Development of Human
a = const a demand ng
X1 = Poverty
X2 = Economic growth

4. RESULT AND DISCUSSION

Sample Description
The researcher presents the findings of his data analysis on economic growth and poverty at the level of the human development index in Padangsidimpuan, namely:

Classical assumption test results.
Test a s umsi classic need to be done because the model of regression per l u pay attention to their penyimpangan depositary g’s on the assumption of a classic. If the assumptions of classical can be met then the variables that used be efficient.

Table. 1 Main Regression Results Influence of Poverty and Economic Growth
To index Development of Man City Padangsidimpuan

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>t-Statistics</th>
<th>P r ob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1</td>
<td>-0.140</td>
<td>1.400165</td>
<td>0.1661</td>
</tr>
<tr>
<td>X2</td>
<td>-0.637</td>
<td>1.178637</td>
<td>0.2427</td>
</tr>
<tr>
<td>C</td>
<td>75.48587</td>
<td>21.23171</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

R-squared = 0.045893
F-statistic = 1.611366
Prob (F-statistic) = 0.207254
Durbin-Watson stat = 0.172718

Multicolinearity test
Multicolinearity is a test that is carried out to ascertain whether in a reg receipt model there is an intercorrelation or collinerity between the independent variables.

Table. 2 R^2 auxiliary regression The Effect of Poverty and Economic Growth
To index Development of Man City Padangsidimpuan

<table>
<thead>
<tr>
<th>No</th>
<th>Equation</th>
<th>R^2*</th>
<th>R^2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>X1 X2</td>
<td>0.029</td>
<td>0.045</td>
</tr>
<tr>
<td>2</td>
<td>X2 X1</td>
<td>0.022</td>
<td>0.045</td>
</tr>
</tbody>
</table>

From the table above, it can be concluded that in this study there was multicollinearity between the independent variables, meaning that each independent variable had a relationship with one another. Variable poverty have a relationship toward the growth of the economy as well as also otherwise for many factors of poverty and pertumbuhan economy has a relationship between one each other.

Autocorrelation test
Autokolerasi test conducted to test whether the model of regression linear is no correlation between errors penggang g u the period of time or space by mistake peng g anggu time or space before (t-1) . To find out whether or not there is autocorrelation in this study, it is necessary to carry out the Breusch-Godfrey test which can be seen in the results in the table below:

**Table. 3 Breusch-Godfrey Test Results (BG)**

<table>
<thead>
<tr>
<th>Breusch-Godfrey Serial Correlation LM Test</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>F-Statistic</td>
<td>1.611366</td>
</tr>
<tr>
<td>Obs * R-squared</td>
<td>7.876434</td>
</tr>
</tbody>
</table>

In the model equations effect Effect of Poverty, and Growth of Economy Against Index Development of Man City Padangsidimpuan with a cross section = 14 and k = 2, then obtained degrees of freedom (db) = 12 (Nk), and using α = 5 per cent obtained χ² table amounting to 21.026. Compared with the value Obs * R-squared test Breusch-Godfrey regression of 7.8764345 the value Obs * R-squared test Breusch-Godfrey is small compared with the value of χ² tables, so it can be concluded that the model regression equation that is free from the symptoms of autocorrelation.

**Heteroscedasititas test**

Problems heteroskedastisitas will appear when errors or residuals of the model are observed not have a variance that is constant from one observation to the observation of the other. In research it using the Test Park to know the problems of heteroskedasticity where hasilnya A can be seen in the table below is:

**Table. 4 Park test results**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1</td>
<td>-0.299543</td>
<td>0.038064</td>
<td>-7.869550</td>
<td>0.0000</td>
</tr>
<tr>
<td>X2</td>
<td>-0.060666</td>
<td>0.085268</td>
<td>-0.711470</td>
<td>0.4801</td>
</tr>
<tr>
<td>C</td>
<td>74.31816</td>
<td>0.502271</td>
<td>147.9642</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

From the results of calculations using the Park test, it can be seen that there is no independent variable that is statistically significant (probability > α = 5%). So can dition m pulkan that there are heterocedastity in the model.

**Fixed Effect Model Analysis**

Results of regression of analysis Fixed Effect Model in the table below this indicates that the level of significance of 0.05 variables Poverty (X1), and Growth Economy (X2) influential negative not significant to the index Pembnagunan Man. Value adjusted R-squared of 0.976277 indicates that the index Development of Man is able to be explained by the variable Poverty (X1) and the Growth Economy (X2) of 97.62 per sen. While the rest is explained by variables other that is not contained in the model of regression of this. Below is presented the...
results of the Fixed Effect Model test of the influence of poverty and economic growth on the human development index, namely:

**Table. 5 Results of Poverty Regression, and Economic Growth on the Index Human Development using the Fixed Effect Model Method**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>76.91962</td>
<td>1.277703</td>
<td>60.20146</td>
<td>0.0000</td>
</tr>
<tr>
<td>X1?</td>
<td>-0.456269</td>
<td>0.079750</td>
<td>-5.721238</td>
<td>0.0000</td>
</tr>
<tr>
<td>X2?</td>
<td>-0.168850</td>
<td>0.095916</td>
<td>-1.760387</td>
<td>0.0845</td>
</tr>
</tbody>
</table>

**Effects Specification**

Cross-section fixed (dummy variables)

<table>
<thead>
<tr>
<th>R-squared</th>
<th>Adjusted R-squared</th>
<th>Mean dependent var</th>
<th>SD dependent var</th>
<th>Prob (F-statistic)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.981466</td>
<td>0.976277</td>
<td>69.48877</td>
<td>3.945222</td>
<td></td>
</tr>
</tbody>
</table>

**Regression Analysis Statistical Test**

**Partial Test (t test)**

Partial test shows the effect of variable independently by individuals against variable dependent with regard variables is another constant. Effect of Poverty and Growth of Economy of the Index Development of Man in the City Padangsidimpuan by using the level of confidence 95 percent and the degree of freedom (df) = 56 (nk = 70 - 14) the obtained results of the t-table amounted to 1.671. The following table presents the results of the t-test statistics for related variables, namely:

**Table 6 The t-statistic value and the coefficient of poverty and economic growth to the index Development of Man City Padangsidimpuan**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>t-Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>76.91962</td>
<td>60.20146</td>
</tr>
<tr>
<td>X1?</td>
<td>-0.456269</td>
<td>-5.721238</td>
</tr>
<tr>
<td>X2?</td>
<td>-0.168850</td>
<td>-1.760387</td>
</tr>
</tbody>
</table>

From the table above can be known that the level of confidence 95 percent variable Poverty affects negative and not significant to the Index Development of Man, so also variable Growth of Economy has Pengaruh negative not significant to the Index Development of Man.

**Simultaneous Test (Test F)**

Simultaneous test shows seberapa great pengarus variables independently secara jointly against variable dependent. Based on the regression results of the effect of poverty and economic growth on the human development index in the city of Padangsidimpuan in 2011-2018, it shows that at the level of confidence 95 percent (α = 5%), with degree of freedom for numerator (dfn) = 1 (k-1 = 2-1) and the degree of freedom for the denominator (dFD) = 65 (nk = 70 - 5), then obtained the F-table for 3.99. From the
results of the regression in Table 4.9 generated \( F \)-static \( t \)ik amounted to 189,1295 while the prob. \( F \) statistics amounted to 0.000000. Then it can be concluded that the variable independent manner together influential against variable dependent (\( F \) count > \( F \) table). Variables Poverty and Growth of Economy in conjunction same effect on the index Development of Man in the City Padangsidimpuan. The more prosperous a society is, as reflected in the decrease in the number of poor people, it is able to improve the quality of human development as reflected by the increase in the Human Development Index. Then, when mass migration of prosperous then the automatic growth of economies in the region such.

**Test Koefisien Determinasi (Test R²)**

Determination coefficient is a statistical test that shows the model's ability to explain the variation in the dependent variable. Value coefficient determination lies between zero and one. If getting a great value for \( R² \) so models are said to be good, so well otherwise. From the Regression Fixed Effects Model are presented in Table 4.9 the value of \( R² \) of 98.15 percent, while the rest is explained by factors other that are not included in the model study this.

**Multiple Linear Regression Equation**

\[
Y = 75.48587 + (-0.140095) X_1 + (-0.637871) X_2
\]

It is known from the equation above that the variable index Development of Human \( Y \) has constant of 75.48587, variable Poverty \( X_1 \) has Constant \(-0.140095\) while constanta variable Growth Economy \( X_2 \) of \(-0.637871\). It shows the effect of which is given by two variables independent \( X \) has a correlation that been influenced were negative against variable dependent.

**Discussion**

**Effect of Poverty Against Index Pembangunan Man in Kota Padangsidimpuan**

Poverty is defined as the condition of someone who is unable to fulfill his basic needs, which is a very complex classic problem. The problem of poverty has existed since the days of ancient hingga now still not be abolished. Each per Antian leadership, change the style of policies that aim at that meningkatkan welfare of society by applying a variety of programming are to alleviate poverty. The result is that every year the poverty rate always experiences an increase and decrease in the number of poor people. Next problem of poverty it will affect the quality of the development of man who tercer m in the Index Development of Man. Increasingly poor state of an individual quality of Pembanga human being created will increasingly lower. Because orang the poor will be more concerned with how a way to survive life than thinking about education that is qualified to improve the quality of life is per. Communities poor will think back to send their children to high or just include the training of soft skills for them to eat it everyday still difficulties. Different case if the community in the state of the economy are well established, for the affairs of eating had not bug again then they will allocate their wealth to improve the quality of life better than in terms of education and health. Research is already put forward the hypothesis that the variable Poverty has influence negatively on the index Development of Man. In other words, Hypothesis 1 is rejected.
From the results of regression through analytical approach to Fixed Effect model is then obtained by the results of the value of the coefficient of 0.456269 and marked negative (-0.456269), this means that the shape of the relationship Poverty with index Development of Man is inversely inverted. This means that if the number of poverty experienced a rise in eating index Development of Man will experience a decline. From the results of the test statistic in the study have indicated that any increase in the factors of poverty at one point will bring down 456 points the index of development of human.

**The Effect of Economic Growth on the Human Development Index in the City of Padangsidimpuan**

Growth in the economy serve as a starting measure the condition of the economy of a region by because it growth Ekonomi has a role which is very important in the development of man. More and better the condition per plant economics of a region means that reflects the state of the economy people are getting better or more prosperous society. With so they would have a chance that more much to improve the quality of life to get an education that is more and follow various training soft skills in order to improve the quality and quantity of productivity.

The more high- growth economy, the more high- ability of the community to improve the quality of life to improve education and health, have the power to buy the high and able to meet the entire needs of life. Based on the theory that there is, in the study’s authors put forward the hypothesis that the variable Growth Economy has influence Positive Development Index Human will, but the results of the test receipts show case the opposite, namely Growth Economy effect is negative with the word la in Hypothesis 2 was rejected.

Rejection of the hypothesis is caused due to the growth of the economy that occurred in each sub-district in the City Padangsidimpuan not evenly distributed. Also due to the result of the growth of the economy are not focused on improving the quality of human life but for other priorities, such as to improve the infrastructure and other so on. From the results of regression through analytical approach to Fixed Effect model is then obtained by the results of the value of the coefficient of 0.168850 and marked negative (-0.168850), this means that the shape of the relationship Poverty with index Development of Man is inversely inverted. This means that if the number of poverty experienced a rise in eating index Development of Man will decline. From the results of statistical tests in research have indicated that any increase in the factors of poverty at one point will bring down 168 points the index of development of human.

**The Effect of Poverty and Economic Growth on the Human Development Index Simultaneously in the City of Padangsidimpuan.**

Variables Poverty and Growth of Economy in conjunction same effect on the index Development of Man in the City Padangsidimpuan. Thus the Human Development Index can be influenced by these two variables. Increasingly sejahteranya a society with reflected from penurunan an amount of people poor turned out to be able to improve the quality of development of man which is reflected by the increase in index Pembangunan Man. Furthermore, when a society becomes prosperous auto- growth economies in the region that will participate experience an increase which is marked by the increasing growth of the economy in a region.
Conclusion
Based on the results of the test statistics, analysis of data and discussion on the research above, it can be drawn the conclusion that:

1) Effect of variable Poverty and Growth of Economy of the Index Development of Man in partial or individual through approach to the analysis of Fixed Effect Model is generating that variable Poverty has influence negatively Index of Human Development in the City Padangsidimpuan, as are also variable Growth Economic impact negatively on the index Human Development in Padangsidimpuan City. It is evidenced by the results of the test statistic by using the program e-views 8 is the result of the t-table amounted to 1.671 while the t-statistic variable Alleviation of (-5.721238), and for variable Growth Economy by (-1.760387).

2) Effect of variable Poverty, and Pertumbuhan Economics in simultaneous effect on the index Development Man in the City Padangsidimpuan (F count > F-table). It is proven in the results of statistical tests that at the confidence level of 95 percent (α = 5%), with degree of freedom for numerator (dfn) = 1 (k-1 = 2-1) and degree of freedom for denominator (dfd) = 65 (nk = 70 - 5), obtained the F-table for 3.99 and results of the F-statistic amounted to 189.1295 while the prob. F statistics amounted to 0.000000.

Suggestion
Based on the results of the analysis and the conclusions above, suggestions for the results of these findings can be given, namely:

1) For the government Kota Padangsidimpuan as implementing programs and decision-making should implement programs for people who are pro-people little that is able to improve the quality and standard of living of society as menangkatkan quality of infrastructure and services to health and education. Provides scholarships are more to society of poor and achievement.

2) For people Cities Padangsidimpuan, should be able to encourage and support the entire policy that is carried out by the government in the framework of the development of quality human. Community sebagai objects rather than the development of human beings should be able to independently and do not always berantun to the government to be able to improve the quality adversely ya, respectively.

REFERENCES


