# Determinan Kesempatan Kerja di Indonesia tahun 2017 - 2021

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#### ARTICLE INFO

#### **ABSTRACT**

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This study aims to analyze the effect of Labor Force, Gross Regional Domestic Product (GDRP), and Human Development Index (HDI) on Employment Opportunities in Indonesia 2017 to 2021. The variables in this study consist of Labor Force, Gross Regional Domestic Product (GDRP), and Human Development Index (HDI). This study uses secondary data in the form of quantitative data obtained from various books and reports published by the Central Statistics Agency, Kata Data, and the study of literature relating to research. Time series data from 2017 to 2021 were used, as well as a cross section of 34 Indonesian provinces. Panel data analysis with the Fixed Effect Model method was used to analyze the data in this study. The results of this study indicate that the labor force has a positive and significant impact on employment opportunities in Indonesia in 2017 – 2021, Gross Regional Domestic Product has a positive and significant impact on employment opportunities in Indonesia in 2017 – 2021, and Human Development Index has a positive and significant impact on employment opportunities in Indonesia 2017 to 2021.

**Keyword:** Employment Opportunities, Labor Force, Gross Regional Domestik Product, Human Development Index

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## 1. Introduction

Population is one of the objects of study of geography. The branch of geography that studies population is human geography, while the science that studies population is called demography. Population has a very important role in the development of a region or a country. Then the population is also one of the factors in the formation of a country. Without a population, a territorial area will not be able to stand firmly as a country. The existence of a population in a country will basically support the country's progress with several conditions, one of which is having a good standard of living.

Indonesia is a developing country. Developing countries are closely related to economic development. Whether or not economic development in Indonesia is progressing, of course, depends on economic growth. Economic growth will measure the achievement and development of an economy in one period to the next to produce goods and services. The level of economic growth can be achieved by a country by increasing aggregate output or Gross Domestic Product (GDP) every year. If economic growth in an area increase, then there has been an increase in economic activity (Dhama and Djohan, 2015). The aim of economic growth carried out by each country is to create state development that canbe felt by the community, namely by increasing and developing companies. So that in this case it is hoped that job opportunities will increase, the level of education will increase and the prosperity of the community will increase due to the increase in people's income.

In Indonesia, population growth continues to increase every year. Population growth must also be balanced with the absorption of labor. Classics such as Adam Smith, David Ricardo and Thomas Robert Malthus argue that there is always a race between the level of development of output and the level of population development which in the end is won by population development. Because the population also functions as a workforce, there will be difficulties in providing jobs.

However, until now, this problem is still not resolved. One of the most common problems regarding employment is unemployment. The unemployment rate in Indonesia proves that economic growth in Indonesia is still not being felt as a whole and the number of jobs available is still not fully able to accommodate the size of the workforce. Presented in table 1.1, the highest unemployment occurred in 2020 at 7.07%, and fluctuated in the following year. Meanwhile, the labor force in Indonesiatends to increase every year.

Table 1.1 Unemployment Data in Indonesia for 2017 - 2021

Year	Unemployment (%)	
2017	5,5%	
2018	5,3%	
2019	5,23%	
2020	7,07%	
2021	6,49%	

Source: Badan Pusat Statistik 2022, data processed

The high labor force on the one hand and the lack of job opportunities are major problems facedby almost all developing countries. Currently, Indonesia has not been able to balance the rate of population with the number of existing jobs. This can cause the unemployment rate in Indonesia to increase and reduce economic growth. The lack of jobs is the main reason for labor problems. This causesnot all people who are included in the labor force to get a job. Employment opportunities and workforcequality are important indicators in development because they have a decisive function in development, namely labor as a resource for carrying out the process of production and distribution of goods and services, as well as labor as a target for generating and developing markets. The existence of these twofunctions can be said that the workforce is a driving force in development (Awandari and Indrajaya, 2016).

The demographic transition is characterized by a doubling of the number of working productive JURNAL PERENCANAAN WILAYAH DAN PEMBANGUNAN Vol. 1, No. 1 (2023)

ages (15-64 years), accompanied by delays in the growth of the young population (under 15 years), anda smaller number of elderly people (over 64 years) from the two results The census is commonly knownas a demographic bonus. Demographic bonuses in economics are known as economic benefits caused by the increasing amount of savings from productive residents (Jati, 2015). The demographic bonus isan era in which the number of people belonging to productive age is greater than the population of non-productive age. The productive age in question ranges from 15 to 64 years of age. The results of the 2020Population Census conducted by the Central Statistics Agency (BPS) noted that there were 270.2 millionpeople in Indonesia.

The negative effect after the demographic bonus is the explosion of old age, while the transition from youth to productive age is not perfect. This condition will become a big problem if there is inadequate employment and mastery of productive assets to be able to work. In pursuing the success of regional development and facing the demographic bonus, it must be accompanied by job creation. Dataon employment opportunities in Indonesia fluctuate but tend to increase every year. This is because many companies are increasing the amount of goods and services by absorbing a lot of labor. The following is data on the level of employment opportunities in Indonesia for 2017-2021:

Table 1.2 Level of Employment Data in Indonesia 2017 - 2021

Year	Level of Employment (%)
2017	94,50%
2018	94,70%
2019	94,77%
2020	92,93%
2021	93,73%

Source: Badan Pusat Statistik 2022, data processed

Employment in Indonesia can be seen from the demand and supply side. Table 1.2 shows Indonesia's employment data from the demand side. Employment data is included in employment from the demand side. The data shows that employment opportunities have increased every year. In 2017 it was 94.50%, in 2018 it was 94.70% and 2019 it was 94.77%. However, in 2020 it decreased to 92.93%, then in 2021 it increased by 0.8% to 93.73%. The decline in the number of job opportunities in Indonesiawas due to the COVID-19 pandemic which required Lock Down in several regions in Indonesia. Of course, this has resulted in many companies laying off several employees and causing the unemployment rate in Indonesia to rise in 2020, which is 3.53%. Table 1.2 shows Indonesia's employment data from the supply side, namely the labor force.

**Table 1.3 Labor Force Data in Indonesia 2017 – 2021** 

Year	Labor Force (%)	
2017	43,54%	
2018	45,34%	
2019	46,20%	
2020	47%	
2021	47,70%	

Source: Badan Pusat Statistik 2022, data processed

Table 1.3 shows data on the labor force in Indonesia that has increased every year. In 2017 it was 43.54%, in 2018 it was 45.34%, in 2019 it was 46.20%, in 2020 it was 47%, and in 2021 it was 47.70%. Labor is one of the important factors in the production process such as land, capital and others. Labor as a human resource has a very large role in national development (Siregar, 2017). The labor force as one of the driving factors of the economy has a positive or negative influence on employment opportunities in Indonesia. In research conducted by (Martasari, 2014) shows that the workforce has a positive effecton

employment opportunities in Jember Regency.

According to Adam Smith's classical theory, every increase in economic growth is expected to absorb labor, thereby reducing the number of unemployed. The growth rate of a country can be seen through the Gross Domestic Product or Gross Domestic Product. The calculation of Gross Domestic Product with the first method is carried out by adding up the total output of each production sector, whilethe second method adds up the allocation of the output for consumption, investment, government spending and net exports (Maimunah, 2013). Generally, if there is economic growth, the labor absorbedby economic sectors can increase so that the unemployment rate decreases or decreases (Putri, 2015). Adam Smith in his book entitled An Inquiry into the Natural and Cause of the Wealth of Nation (1776)said that the role of the population in economic development, Adam Smith argued that GDP growth (Gross Domestic Product) and population growth would encourage economic development. GDP growth itself will be influenced by several factors, including the availability of natural resources, population, and supply of capital goods. Economic growth also has supporting variables that can enhance and assistthe process of economic growth such as: Investment, Labor Force, Inflation and Government Spending. The following is data on economic growth in Indonesia:

**Table 1.4 Econoic Growth Data in Indonesia 2017 – 2021** 

Year	Economic Growth (%)
2017	5,07%
2018	5,17%
2019	5,02%
2020	-2,07%
2021	3,69%

Source: Databoks Kata Data and processed by Badan Pusat Statistik, 2022

Table 1.4 shows a data of economic growth in Indonesia in 2017-2021 which has fluctuated. The decline in GDP in 2020 cannot be separated from the effects of the COVID-19 pandemic which has weakened economic activity in Indonesia. From this it is a concern that the State of Indonesia is still not optimal in managing human resources resulting in a decrease in employment. The decline in Indonesia's economic growth coupled with the demographic bonus has caused the 2020 GDP to decline.

Some economists have believed that the process of economic growth can be supported by human capital. Schultz in (Nurkholis, 2013) states that human capital is an important factor in increasing economic productivity in a country. Human capital itself can be achieved in two ways, namely humansare used as labor based on quantity. This states that the greater the number of workers, the higher the productivity and will create employment opportunities. In this case, it means that the quality of the population influences employment opportunities in Indonesia. Research conducted by (Nurhardiansyah, 2017) shows that the quality of life as measured using HDI has a significant effect on employment opportunities in Java Island in 2006-2015. Second, investment activities are the main way to increase human capital.

In a study conducted by (Setiawan & Hakim, 2013) said that the Human Development Index (HDI)is a single composite indicator which, although it cannot measure all dimensions of human development, but measures three main dimensions of human development which are considered capable of reflecting basic abilities residents. The following is data on Human Development Index in Indonesia:

**Table 1.5 Human Development Index Data in Indonesia 2017 – 2021** 

Year	Human Development Index (%)
2017	70,81%
2018	71,39%

2019	71,92%
2020	71,94%
2021	72,29%

Source: Badan Pusat Statistik 2022, data processed

Table 1.5 shows data on the Human Development Index (IPM) in Indonesia in 2017 - 2021. The Central Statistics Agency noted that the human development index reached 72.29% in 2021. This figure increased by 0.49% compared to the previous year which was 71.94%. This proves that the quality of life of people in Indonesia is getting better every year.

According to the National Labor Force Survey (Sakernas) in August 2018 carried out by the Central Statistics Agency (BPS) stated that the results of the August 2018 Sakernas data recorded higherfigures than the previous year. The Minister of PPN/Head of Bappenas Bambang Brodjonegoro who served at that time stated that the number of Indonesian jobs in 2018 had exceeded the target of the 2018Government Work Plan (RKP) and the 2015-2019 National Medium-Term Development Plan (RPJMN), which was an increase of 2.99 million compared to 2017 (BAPPENAS Press Release August 2018). Inthe 2015-2018 range, the Government has succeeded in creating 9.38 million jobs. In absolute terms, the number of unemployed has also fallen by 40 thousand people, so that the Open Unemployment Rate (TPT) has been successfully reduced to 5.34 percent. The number of jobs continues to increase every year. In 2018 it was 94.70% and 2019 it was 94.77%. However, in 2020 it decreased to 92.93%. The decline in the number of employment opportunities in Indonesia is due to the government's policy of limiting community activities in several regions in Indonesia. Of course, this has resulted in many companies laying off several employees and causing the unemployment rate in Indonesia to rise in 2020, namely 3.53%.

## 2. Literature Review

## **Labor Demand Theory**

According to classical theory, the demand for labor depends on wages, namely the lower the wage, the more labor in an economy. In general, the theory of demand for labor is almost the same as the theory of demand for goods and services in economics (Arida, Zakiah, & Julaini, 2015). The demandfor labor is the amount of labor needed by an agency at a certain wage level, whereas in economics, demand means the number of goods demanded by consumers at a certain price level.

The demand for labor is a derived demand, meaning that if the demand for an item increase, the company will increase the number of workers to carry out production activities (Falianty, 2019). The labor required corresponds to changes in the economy so demand is constantly changing. Companies that want maximum output can choose the best number of workers that will create job opportunities. Figure 2.1 will explain the labor demand curve which has a negative slope. The curve explains the relationship between the wage rate and the number of workers. The curve has a negative relationship where the higher the level of wages demanded, the lower the number of workers and vice versa.

Figure 2.1 shows that line D is the value of the marginal physical product of labor (VMPPL) for each level of worker placement. If the number of workers needed is OA = 100 people, then the value of the 100th work is called VMPPL and is the same as MPPL x P = W1. This value is greater than the wage rate (W). The company's profit will increase if it adds workers. Companies can add workers to ON. At point N the firm reaches its maximum profit and MPPL x P = wages paid.

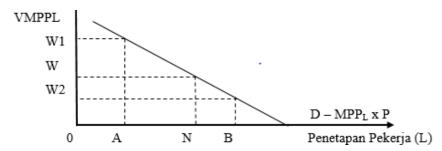


Figure 2.1 The Demand Function for Labor (Source: Feriyanto, 2014)

The demand for labor can be derived from the production function in an economic activity (input to output) (Falianty, 2019). If it is assumed that the production process uses two types of production factors, namely labor (L) and capital (K), then the production function can be formulated as follows:

$$Q = f(L, K)$$
....(1)

In the analysis of determining employment, it is assumed that there are two inputs used, namely capital (K) and labor (L). Labor is measured by the wage rate (W) and capital is measured by the interest rate (r).

$$W.L = [P.f(L, K)] - Rk - \pi$$
 (2)  
 $L.D = [.] - .... (3)$ 

Based on the equation above, the demand for labor is a function of labor productivity, interest rates, capital, and wage levels are important factors in economic growth.

# **Labor Supply Theory**

The amount of labor supplied by the owner of the workforce at each possible wage within a certain period is called the labor supply. In classical theory, human resources (workers) are individuals who are free to make decisions whether to choose to work or not. Workers also have the right to determine the number of hours worked. This theory is based on consumer theory where each individual aims to maximize satisfaction with the constraints they face.

According to the Neo-Classical theory, the supply of labor will increase as the wage rate increases. G.S Becker (1976) states that individual satisfaction is obtained through consumption or enjoying free time. Income levels and time are constraints that are often faced by individuals and the main issue is the hours of work to be offered at the desired level of wages and prices.

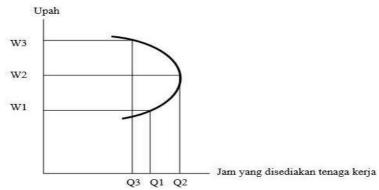


Figure 2.2 The Supply Function for Labor (Source: Feriyanto, 2014)

Figure 2.2 shows that the labor supply curve has a backward curved section. At a certain wage level, the provision of individual working time will increase if wages increase from W to W1. After reaching a certain wage, the increase in wages will reduce the time provided by individuals forwork purposes from W1 to WN and is called the Backward Bending Supply Curve. Backward bending of the

supply curve only occurs in individual or individual labor supply. This contrasts with the relationship between wage rates and the overall labor supply. In the economy, the higher the wage ratewill encourage people to enter the labor market (Agustini & K., 2017). People who do not want to workat low wages will seek jobs at high wages.

## **Solow Growth Theory**

One of the influential theories on economic growth is the Solow growth model. The Solow model theory is designed to show how the total output of goods and services in a country is affected by growth in the capital stock, growth in the workforce and technological progress (Maulana, 2015). Solow emphasizes long-term growth and the role of capital, labor, and technology as factors of production. Solow also believes that economic growth will occur if there are three factors, namely capital accumulation, the number of workers, and technological progress. This technological progress is still considered an exogenous factor. Capital accumulation is influenced by the level of savings, consumption, and investment activity. The greater the income saved; the investment activity will also increase (Fadli, 2017). Meanwhile, the number of workers in Solow's theory is the number of residents in a country. Thus, the relationship between these variables can be formulated in the form of a functionas follows.

$$y = f(k)$$
....(1)

From equation 1 the output of each worker (y) is a function of the capital stockof each worker. This is in accordance with the production function which applies the law of "the law ofdiminishing returns", where at the initial point of production, the addition of each worker's capital willincrease the output of more workers (Koerniawan & Tallo, 2020). However, at a certain point, the addition of capital stock for each worker will not increase the output for each worker and may even reduce the output for each worker. The investment function can be formulated as follows.

$$i = s f(k)$$
 (2)

From this equation, the investment level of each worker is a function of capitalstock. Capital stock is influenced by the level of investment and depreciation. Where investment activities can increase capital stock while depreciation will reduce capital stock. This can be seen in the following equation.

$$\Delta k = i - \gamma \ kt. \tag{3}$$

γ is the depreciation portion of the capital stock.

High savings rates have an effect on increasing capital stock and can also increase income so thatit can accelerate economic growth (Falianty, 2019). However, the higher the capital stock, the greater the amount of depreciation. When the economy is in certain conditions, namely when the amount of investment is equal to the amount of depreciation. This condition is called the steady state level of capital, where the capital stock (k) and output f(k) are in a steady state over time, that is, they will not grow or shrink.

In this theory, besides the savings rate, growth can also be affected by population growth. This population can increase the amount of labor and will reduce the amount of capital stock for each workerby itself. If the rate of population growth and rate of depreciation are balanced then together this can reduce the capital stock of workers. The influence of the population can be formulated as follows.

$$\Delta \mathbf{k} = \mathbf{sf}(\mathbf{k}) - (\gamma + \mathbf{n}) \, \mathbf{kt}, \tag{4}$$

Where n is the population growth rate. In this theory it can be said that countries with high population growth rates tend to have low GDP per capita.

The next formulation, namely the production function is Y = f(K, L.E), where E is the efficiency of the workforce. Furthermore, y is Y/LE where LE shows the number of effective workers. Solow assumes that technological progress is still considered an exogenous factor for the country's economic growth. The influence of technological advances on changes in capital can be formulated as follows.

$$\Delta k = sf(k) - (\gamma + n + g) kt, \qquad (5)$$

In the formula above g describes where technological progress through labor efficiency. The factor of technological progress can be seen through the increase in the number of goods produced eachyear. If

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the amount of production increases, it can be said that a country's technology increases because the machines used are updated.

# **Human Capital Theory**

Human Capital is linguistically composed of two basic words, namely Human (human) and Capital (capital), which is a knowledge, expertise, skills, and creativity that is embodied in work ability that can be used to produce professional services and economic value. According to (Gaol, 2014) statesthat Human Capital is knowledge, expertise, abilities, and skills that make humans or employees the capital or assets of a company. Human Capital is an important factor in the production process becausehuman resources are an important asset in a company to improve company performance (Nurhardiansyah, 2017).

Schultz in (Nurkholis, 2013) states that human capital is an important factor in increasing economic productivity in a country. Human capital itself can be achieved in two ways, namely humans are used as labor based on quantity. This states that the greater the number of workers, the higher the productivity and will create employment opportunities. In this case, it means that the quality of the population influences employment opportunities in Indonesia.

#### 3. Research Methods

## **Types of Research**

This study uses a quantitative analysis approach with the method of explanation (Explanatory Research), which is a research method used to determine whether there is a relationship between two or more variables or not and can be used to determine the nature of the relationship between two or more variables. In this study the dependent variable is employment opportunities. While the independent variables are the labor force, GRDP, and HDI. This research will be explained in an associative manner where associative research is research that aims to determine the effect of the relationship between twoor more variables. While this type of descriptive research is used to describe the relationship between the workforce, GRDP, and HDI on employment opportunities in Indonesia.

## **Data Types and Sources**

The type of data used in this study is secondary data obtained from the provider of data sources. The data was obtained from BPS (Central Statistics Agency) in the form of panel data which is a combination of time series data and cross-section data. The time series data in this study is from 2017-2021, while the cross-section data used covers 34 provinces in Indonesia. Secondary data is used in this study because the research carried out includes objects that are macro in nature. The data was obtained from various sources including the Central Statistics Agency (BPS), said data, scientific journals, and other literature relevant to this research.

## **Data Analysis Method**

The analysis model used in this research is using multiple linear regression data analysis techniques with quantitative research methods on panel data. Estimation of this regression analysis was carried out using the Ordinary Least Square (OLS) method. The OLS method is used to show the relationship and influence between the dependent and independent variables. To analyze panel data, a computer program data processing tool, namely Eviews 9 (Quantitative Micro Software) is used.

Based on the theory that has been conceptualized, the basic panel data model used in this study is:

Y it = 
$$\alpha i + \beta 1X1$$
 it +  $\beta 2X2$  it +  $\beta 3X3$ it +  $\mu$ it

Looking at the econometric model, it can be described by the function:

KK it = 
$$\alpha i + \beta 1$$
AK it +  $\beta 2$ PDRB it +  $\beta 3$ IPMit +  $\mu$ it

Then the equation is expressed in the path analysis model by transforming the equation into logarithmic form and is ready to be estimated. The equation is then formulated in the following equation:

KK it = 
$$\alpha i + \beta 1LOG(AK it) + \beta 2LOG(PDRB it) + \beta 3LOG(IPMit) + \mu it$$

## 4. Result and Discussions

#### Result

Multiple Linear Regression Analysis used in this study to find out the magnitude of the regression coefficients of the independent variables, namely: Work Force (AK), GRDP (PDRB), and HDI (1PM) on the dependent variable, namely employment opportunities in Indonesia, there is a multiple linear regression equation as following:

KK = 9,885270 + 0,027662AK + 0,118566PDRB + 0,039447IPM

Simultaneous F test is a joint or simultaneous hypothesis test to determine the relationship of the independent variables to the dependent variable. In this test it is used to determine the relationship between the workforce, GRDP, and HDI on employment opportunities.

Based on the results of the regression analysis, it was obtained an estimated F-statistic value of 8087.332 with an F-statistical probability of 0.000000, which means that the value is smaller than the significance level  $\alpha=0.05$  so that  $H_0$  is rejected and  $H_1$  is accepted. This indicates that the labor force, GRDP, and HDI variables simultaneously have a significant effect on employment opportunities in Indonesia.

The t test was conducted to find out how much influence the independent variables (individuals) individually can have on the dependent variable. Based on the results of the t test, it shows the partial effect of each independent variable on the dependent variable with the following explanation:

- 1) The probability value of the labor force variable is 0.0223, meaning that the probability is smaller than the significance level ( $\alpha = 0.05$ ) so that in this study the workforce has a significant effect on employment opportunities in Indonesia in 2017-2021.
- 2) The probability value of the GRDP variable is 0.0051, meaning that the probability is smaller than the significance level ( $\alpha = 0.05$ ) so that in this study GRDP has a significant effect on employment opportunities in Indonesia in 2017-2021.
- 3) The probability value of the HDI variable is 0.0000, meaning that the probability is smaller than the significance level ( $\alpha = 0.05$ ) so that in this study HDI has a significant effect on employment opportunities in Indonesia in 2017-2021.

The coefficient of determination is carried out to measure the model's ability to explain the dependent variable, namely employment opportunities in Indonesia in 2017-2021. The value of R2 is 0to 1, if the value of R2 is getting closer to number 1, it can be concluded that the model has a strong influence in explaining the dependent variable, but if R2 is close to 0 then the model has a weak influencein explaining the dependent variable. The R-squared value in this study is 0.999543. This shows that the dependent variable of employment opportunities in Indonesia can be explained by independent variables, namely the workforce, GRDP, and HDI of 99.95 percent while 0.05 percent is explained by other variables outside of this research model.

The normality test was carried out to see whether the confounding variables or residual values in the regression model in this study had a normal distribution. The test results show that the data is normally distributed.

The multicollinearity test was carried out to test whether the regression model found a correlation between the independent variables. If the independent variables are correlated with each other, then the independent variables are equal to zero and if each independent variable is correlated by 0.9 then it is infected with multicollinearity. The test results show that the coefficient value of the independent variable is below 0.90 so that it can be concluded that the model does not have multicollinearity or the multicollinearity assumption is fulfilled.

The heteroscedasticity test was carried out to test whether the heteroscedasticity problem was infected or not. This test can be carried out using the Glejser test by regressing between the independent variables and their residual absolute values. The results of the heteroscedasticity test show that the

regression results between the independent variables and their residual absolute values indicate that thereis no heteroscedasticity problem.

The autocorrelation test is carried out to determine whether the autocorrelation problem is infected or not. This test can be done using the Durbin-Watson test (DW) by looking at the DW value in the FEM regression results. The results of testing the DW value in this study amounted to 1.818047. In accordance with the decision making in the autocorrelation test, namely 1.7134(dU) < 1.818047(DW) < 2.2149(4-dU), it can be concluded that in this study there was no autocorrelation.

### **Discussion**

The Effect of the Labor Force on Employment Opportunities

This study uses a quantitative method with panel data regression using the Fixed Effect Model. Based on the results of the analysis, in this study the labor force variable has a positive and significant effect on employment opportunities in Indonesia in 2017 - 2021. This means that if the workforce increases, employment opportunities will also increase.

The work force which has a positive and significant influence on employment opportunities in Indonesia is due to the Indonesian government's efforts to improve the quality of the work force in Indonesia. In improving the quality of the workforce in Indonesia, the government has made various efforts including implementing workforce training assisted by qualified experts as mentors, improving the quality of formal education, and creating pre-employment cards. According to the Central Bureau of Statistics, data on the labor force in Indonesia has increased every year. This proves that the government's efforts have been successful in improving the quality of the workforce in Indonesia.

According to (Sumarsono, 2003) workforce is all people who are willing and able to work, where labor includes all people who work for themselves and their family members. Population and labor force growth can affect employment opportunities. The increase in the number of labor force affects the increase in people's income or wage rate. The problem of employment opportunities and the size of theworkforce are indirectly related to per capita income.

The Effect of the GDRP on Employment Opportunities

This study uses a quantitative method with panel data regression using the Fixed Effect Model. Based on the results of the analysis, in this study the GRDP variable has a positive and significant effecton employment opportunities in Indonesia in 2017 - 2021. This can be interpreted that if GRDP increases, employment opportunities will also increase. Gross Regional Domestic Product which has a positive and significant impact on employment opportunities in Indonesia is due to the government's efforts to increase economic growth in Indonesia. In increasing economic growth, increasing investment is an effort made by the government because the government can use investment to improve infrastructure and improve the standard of living of the Indonesian people. In addition, the increase in export activitiesis also included in efforts to increase Indonesia's economic growth by paying special attention to five export-oriented sectors, namely: labour-intensive, tourism and creative, and leading industries. The government is also carrying out overall infrastructure development in Indonesia which aims to cut logistics costs which are quite high which will hamper the economy in remote areas.

According to the theory put forward by Adam Smith, he argues that GDP growth (Gross Domestic Product) and population growth will drive economic development. Generally, if there is economic growth, the labor absorbed by economic sectors can increase so that the unemployment rate decreases ordecreases (Putri, 2015). The increase in GRDP has a relationship with the availability of employment opportunities. Changes in the level of employment opportunities are not only caused by time but also by economic activities in a region.

The Effect of the HDI on Employment Opportunities

This study uses a quantitative method with panel data regression using the Fixed Effect Model. Based on the results of the analysis, in this study the HDI variable has a positive and significant effect on employment opportunities in Indonesia in 2017 - 2021. This can be interpreted that if the HDI increases, JURNAL PERENCANAAN WILAYAH DAN PEMBANGUNAN Vol. 1, No. 1 (2023)

employment opportunities will also increase.

The Human Development Index which has a positive and significant impact on employment opportunities in Indonesia is caused by the efforts made by the government to increase the human development index, including improving the quality of services in the health and education sectors. Improving public health services is carried out through several strategies and policies covering thehandling of stunting, health services, and the primary basis for revitalizing the transformation of puskesmas, development of domestic production of pharmaceuticals and medical devices, as well as development and utilization of technology, digitization, and biotechnology in the health sector. Meanwhile, in the education sector, the establishment of PAUD HI in every village, increased access, and equity in education services, as well as scholarships for tertiary students. The policies undertaken bythe government to increase the human development index experienced significant progress. According to the Central Bureau of Statistics, the HDI figure has increased every year. This proves that the quality of life of people in Indonesia is getting better every year.

According to Schultz in (Nurkholis, 2013) states that human capital is an important factor in increasing economic productivity in a country. If economic productivity in a country, human capital itselfcan be achieved in two ways, namely humans are used as labor based on quantity. This states that the greater the number of workers, the higher the productivity and will create employment opportunities. In this case, it means that the quality of the population influences employment opportunities in Indonesia.

## 5. CONCLUSION

The conclusions obtained based on the results of analysis and discussion in this study through comparisons of theory, empirical and results of analysis using quantitative methods with panel data regression are as follows:

- 1) The labor force variable has a positive and significant influence on employmentopportunities in Indonesia.
- 2) The GRDP variable has a positive and significant influence on employment opportunities in Indonesia.
- 3) The HDI variable has a positive and significant influence on employment opportunities in Indonesia.

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