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THE EFFECT OF ECONOMIC GROWTH AND THE NUMBER OF POPULATION TO THE UNEMPLOYMENT RATE IN INDRAGIRI HULU REGENCY

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Abstract

The research location used as the object of this research is the Central Statistics Agency of Indragiri Hulu Regency. This study aims to determine the effect of economic growth and population simultaneously on the unemployment rate, to determine the effect of economic growth partially on the unemployment rate, to determine the effect of the total population partially on the unemployment rate in Indragiri Hulu Regency. The type of data used in this study is secondary data. The analytical method used is multiple linear regression methods, with the help of SPSS version 21.

Based on the results of simultaneous economic growth and population growth has a significant effect on the unemployment rate, economic growth has a partially positive and significant effect on the unemployment rate, the population has a partially positive and significant effect on the unemployment rate, and other variables affect the unemployment rate that is not examined in research

Keywords: *Economic Growth, Population, Unemployment Rate*

INTRODUCTION

Unemployment is an issue that is very complex because it affects simultaneously influenced by several factors that interact to follow a pattern that is not always easy to understand and to date have not been able to be addressed by the national government in general and entering areas in particular. A large unemployment has broad social implications because those who do not work means they do not have income. The loss of revenue opportunities residents have difficulties to meet the basic needs, which in turn will bring them into the abyss of poverty.

In Indragiri Hulu unemployment rate is an issue that needs serious treatment, for more details see the unemployment rate in Indragiri Hulu can be seen in Table 1:

Table 1: Unemployment Rate in Indragiri Hulu Regency Year 2008-2017

No	Year	Unemployment Rate (%)
1	2008	5.98
2	2009	6.99
3	2010	8.28
4	2011	7.73
5	2012	4.70
6	2013	3.82
7	2014	3.97
8	2015	4, 82
9	2016	6.90
10	2017	4.73

Source: Statistics Indonesia, 2019

From the data in the table above it can be seen that the unemployment rate in Indragiri Hulu Regency from 2008-2017, where the percentage of the highest unemployment rate in 2010 was 8.28%, while the percentage of the lowest unemployment rate in 2013 was 3.82%. So based on the results of BPS calculations Indragiri Hulu Regency, the unemployment rate in Indragiri Hulu Regency is estimated to be still high, with an average percentage unemployment rate during 2008-2017 at 6 %.

The problem of unemployment is one of the factors that affect the unemployment rate of economic growth. This is the same as the results of the study by Nadia Ika Purnama (2015), that economic growth has a positive but not significant effect on the unemployment rate. Muhammad Nurcholis (2014), that economic growth has a significant effect on the unemployment rate. As for economic growth in Indragiri Hulu can be seen in the table below.

Table 2: Economic Growth in Indragiri Hulu Regency Year 2008-201 7

No	Year	Economic growth (%)
1	2008	4.15
2	2009	5.41
3	2010	7.76
4	2011	5.25
5	2012	8.39
6	2013	6.21
7	2014	5.53
8	2015	-2.94
9	2016	3.68
10	2017	4.02

Source: Statistics Indonesia, 2019

The table above shows that economic growth in Indragiri Hulu after 2008-2017 each year is uncertain, where the percentage of the highest economic growth rate there in 2012 amounted to 8.39%. But the following year continued to decline. Up to 2015, economic growth has plummeted at the lowest point of economic growth of -2.94 %. But in 2016 the increase was initially minus the previous year, this year the economic growth reached 3, 68%.

In addition to economic growth factors that influence the unemployment rate, population development, according to the results of research by Rangga Pramudjasi et al (2019). That the population has a positive and significant effect on the unemployment rate. To see more clearly the Total Population Growth in Indragiri Hulu Regency, please see the table below.

Table 3: Total Population Growth Indragiri Hulu Year 2008-2017

No	Year	Total population (Soul)	total KK	Population growth (%)
1	2008	322 759	82,917	1.64
2	2009	352,471	87,758	5,00
3	2010	363,442	88158	3.11
4	2011	376,578	91,754	3.61
5	2012	392,354	99,109	3 , 28
6	2013	401,201	104,701	3.16
7	2014	400,901	110,974	-0.08
8	2015	409,431	117,989	2.13
9	2016	417,733	-	4.47
10	2017	425,897	-	-0.43

Source: Statistics Indonesia, 2019

Based on the data above, the population growth rate in Indragiri Hulu Regency in the past 10 years, 2008-2017 shows that each year is uncertain, the percentage of the population growth rate increased in 2009 by 5.00%. While the rate of population growth slowing was in 2014 of -0.08%.

An increase in population will increase the workforce. The number of the workforce is growing faster and employment opportunities will result in unemployment. Unemployment is what will later bring economic instability and will also affect instability in other areas of life.

From the background description of the problem above and the phenomena and previous research studies, the researcher wants to conduct a study entitled "The Effect of Economic Growth and The Number Of Population To The Unemployment Rate in Indragiri Hulu Regency".

THEORITICAL REVIEW

A. Unemployment

1. Definition of Unemployment

Unemployment is a thing that will always appear in the economy, where the aggregate expenditure is lower than the ability of the product factors that are already available in the economy to be able to produce goods and services. (Prasaja, 2013: 72). Unemployment can be described as a condition where there is a transfer of some labor factors to other fields which will not reduce the overall output of the origin sector. Or it can be said that the productivity of the margins among the factor units of labor from which they work is zero or almost near-zero or also negative. (Jhingan, 201 2:22)

One of the reasons unemployment always appears in the economy is job search. Job search is a process for a person to match workers with jobs according to their talents and skills according to their. However, if all workers and jobs make no difference, then it is possible for the workers that they are suitable for any job, but in reality, the talents and abilities of a person vary. (Mankiw, 201 2:17)

2. Factors Affecting Unemployment

Unemployment varied in various locations, while variable affecting regional unemployment, among others : (Elhorst in Fatima, et al., 2015: 39); Changes the natural (the effect of birth and demographics others, Participation labor force (participation of men and women, Migration, Commuter, Wage, Labor Union, Employment, Gross Domestic Product (GDP), Market Potential, Population Density, Industrial Diversity, Educational attainment of the population.

3. Types of Unemployment

Unemployment can be divided into several types, namely: (Sukirno, 2011: 32 8-331); Frictional Unemployment, Cyclical Unemployment, Structural Unemployment.

4. Efforts to Overcome Unemployment

There are several ways to overcome unemployment, including: (Sudradjad, 2012: 11); Creating own income, entrepreneurial development needs, the Government in overcoming unemployment is by providing funding from the government, people's business credit loans.

B. Economic growth

1. Definition of Economic Growth

The process of economic development is essentially an effort to increase the capacity of the economy to be able to create jobs that will ultimately encourage the realization of prosperity for all people. (BPS, 2014: 1). Prof. Simon Kuznet defines economic growth as a long-term increase in the ability of a country to provide more and more types of economic goods to its population, this ability to grow according to technological progress and the necessary institutional and ideological adjustments. (Jinghan, 2012: 57)

Growth fiscal economy means the development of production of goods and services

existing in the country, such as increasing and the amount of production of industrial goods, infrastructure development, increase the number of schools, the increase of the production of the service sector and an increase of production of capital goods. To provide a rough picture of the economic growth achieved by a country, a measure that is always used is the level of real national income growth achieved (Sukirno, 2011: 423).

2. Factors that Determine Economic Growth

Factors that determine economic growth are: (Sukirno, 2011: 429); Land and Other Natural Resources, Number and Quality of Population and Labor, Capital Goods and Technological Level, Social Systems and Community Attitudes.

Economists consider the factor of production as the main force influencing growth. Economic growth rate increase or decrease is a consequence of changes in the factors of production. Some production factors consist of: (Adisasmita, 2013: 103); Natural Resources, Capital Accumulation, Organization, Technological Progress, Work Sharing and Production Scale.

C. Total Population

1. Definition of Population

Population is everyone persons in the geographic area of the Republic of Indonesia for 6 months or more and those who live less than six months to settle. (BPS, 2014: 102). Residents are people in their matrices as individuals, family members, members of the community, citizens, and the quantity of population who reside in a place within a certain territory. (Mantra, 2009: 1).

2. Factors That Affect Population Amount

Three main factors influence population growth, namely: (Mantra in Wulandari, 2016: 3); (1) Birth Fertility, (2) Mortality, (3) Death, (4) Migration (Movement).

3. Population Control

Two types of controls (checks) that can be done when the population growth is high, namely: (Todaro, 2012: 46)

- a. Negative/preventive checks are used for birth control such as delaying marriage, and moral control. These negative checks only apply to low-level workers and poor people.
- b. Positive checks are a decrease in population due to increased deaths due to hunger, disease, and war.

D. Prior Research Journal

1. Moch Heru Anggoro and Yoyo Soesatyo (2015) The Effect of Economic Growth and Growth of the Labor Force on Unemployment Rates in the City of Surabaya, the results showed that there are between variables influence significantly the economic growth on the unemployment rate in the city of Surabaya.
2. Mukti Hadi Prasaja (2013) Effects of Foreign Investment, Population and Inflation on Educated Unemployment in Central Java Period 1980-2011. The results of the study population has a positive and significant effect on educated unemployment in Central Java, inflation has a positive and not significant effect on educated unemployment in Central Java. The variable of foreign investment, population, and inflation significantly influence educated unemployment in Central Java.
3. Safuridar, (2011) Effects of Economic Growth and Population on Unemployment Rates in East Aceh District. With the results of the study at the conclusion that simultaneously (simultaneously) economic growth and population influence the unemployment rate can be accepted after passing the F test, where the significance level of F is below 5%.
4. M. Amirul Muminin, (2017) Effect of Economic Growth and Population on Open Unemployment Rate in East Java Regency/City 2011-2015. The results of this study

indicate; Economic Growth has a significant negative effect on the Open Unemployment Rate.

E. Research Hypothesis

1. Growth economy and the number of people in simultaneous effect on the unemployment rate.

Safuridar, (2011) With the results of research on the conclusion that simultaneous (simultaneous) economic and population growth affect the unemployment rate can be accepted after passing the F test, where the significance level of F is below 5%. So the first hypothesis in this research is:

H1 = The economic growth and the number of people simultaneously influence significantly to the level of unemployment in Indragiri Hulu.

2. Growth economy is partially an effect on the unemployment rate.

Moch Heru Anggoro and Yoyo Soesatyo (2015) the results showed that there are between variables that influence significantly the economic growth on the unemployment rate. Then the second hypothesis in this study is:

H2 = Economic growth how partially significant effect on the unemployment rate. in Indragiri Hulu Regency.

3. The total population partially influence on the unemployment rate.

Mukti Hadi Prasaja (2013) The results of research population numbers have a positive and significant effect on educated unemployment in Central Java, inflation has a positive and not significant effect on educated unemployment in Central Java. The variable of foreign investment, population, and inflation significantly affected educated unemployment in Central Java. Then the third hypothesis in this study is:

H3 = Population partially has a significant effect on unemployment rates in Indragiri Hulu Regency.

RESEARCH METHODS

A. Research Sites

This research was conducted in Indragiri Hulu Regency and the Central Statistics Agency as the research object.

B. Data Types and Sources

Data Type: Qualitative and Quantitative, Source

Data: secondary data.

C. Data analysis

1. Classical Assumption Test: Normality, Multicollinearity, and Heteroskedasticity.

2. Multiple Linear Regression Analysis

The multiple linear regression equation is as follows (Ghozali, 2009:89):

$$Y = a + b_1 X_1 + b_2 X_2$$

- a. The coefficient of determination (R^2)
- b. Correlation Coefficient (R)

3. Hypothesis Testing

- a. Simultaneous Significance Test (Statistical Test F)
- b. Test for Significance of Partial Influences (t-Test)

RESULTS AND DISCUSSION

A. Classic Assumption Test

1. Normality Test

The test results obtained using *SPSS Version 21* program assistance are as follows:

Figure 1. Normality Curve

From the curve analysis, it can be seen that the data is spread around the diagram and follows the regression model so that it can be concluded that the data processed is normally distributed data so that the normality test is met.

2. Multicollinearity Test

The results of the analysis of the regression multicollinearity test can be seen in the following "Coefficients" table:

Table 4:
Multicollinearity Test Analysis Results (^aCoefficients)

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	4,300	, 669		6,424	, 000		
Economic growth	, 043	, 115	, 083	2,375	, 719	, 906	1,103
Total population	, 500	, 131	, 850	3,828	, 006	, 906	1,103

a. Dependent Variable: Unemployment Rate

From the results of the output data showed that the values obtained for 1,103 VIF where $VIF < 10$, multicollinearity does not occur or it can be concluded that the multicollinearity test is fulfilled.

3. Heteroscedasticity Test

Here are the results of the Heteroscedasticity H test, namely:

Figure 2 . Heteroscedasticity Test Curve

From the picture above it can be seen that there is no heteroscedasticity because there is no clear pattern and the points spread above and below the number 0 on the Y axis so that it can be said that heteroscedasticity test has been fulfilled.

B. Multiple Linear Regression Analysis

Based on the research data collected for both the dependent variable (Y) and the independent variables (X_1 and X_2) which were processed using *SPSS Version 21* program, the results of multiple linear regression calculations are obtained as follows:

Table 5:
Recapitulation of Multiple Linear Regression Analysis Results (^a Coefficients)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constan)	4,300	, 669		6,424	, 000
Economic growth	, 043	, 115	, 083	2,375	, 719
Total population	, 500	, 131	, 850	3,828	, 006

a. Dependent Variable: Unemployment Rate

From the table above we can get the linear regression equation as follows:

$$Y = 4,300 + 0.043X_1 + 0.500X_2$$

- The coefficient of economic growth (X_1) The coefficient of positive value means that there is a positive relationship between economic growth and the unemployment rate, the more economic growth increases, the more the unemployment rate increases.
- Population coefficient (X_2) Positive coefficient means that there is a positive relationship between the population and the unemployment rate, the more the population increases, the more the unemployment rate increases.

1. Coefficient of Determination (R^2)

The coefficient of determination is a quantity that indicates the amount of variation in the dependent variable that can be explained by the independent variable. In other words, this coefficient of determination is used to measure how far the independent variables are in explaining the dependent variable.

Table 6:
D coefficient of determination (*Model Summary* ^b)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	, 829 ^a	, 8 87	, 597	1,01692

a. Predictors: (Constant), Population, Economic Growth i

b. Dependent Variable: Unemployment Rate

Results of the calculations regression can be seen that the coefficient of determination (R^2) obtained at 0.887. This means that 88.7 % of the variation in the variable unemployment rate can be explained by variables of economic growth and population, while the remaining 11.3% is influenced by other variables not examined in this study.

2. Correlation Coefficient (R)

The correlation coefficient to test the presence/absence of the relationship and the

direction of the relationship between two or more variables. The size of the relationship between the two variables is expressed in the field called the correlation coefficient (R).

Table 7:
Summary Model of Regression Calculation
D coefficient of determination (*Model Summary*^{b)})

Model	R	<i>R Square</i>	<i>Adjusted R Square</i>	<i>Std. Error of the Estimate</i>
1	,829 ^a	,887	,597	1,01692

a. Predictors: (*Constant*), Population Amount, Economical Growth

b. Dependent Variable: Unemployment Rate

It is known that the correlation coefficient R of 0.829 means that there is a very strong relationship between the variables of economic growth and population on the unemployment rate variable with the direction of a positive relationship.

C. Hypothesis Testing

1. F Test (Simultaneous Hypothesis Testing)

To test the effect of independent variables jointly tested using the F test. The results of the simultaneous regression calculations are obtained as follows:

Table 8:
Simultaneous Regression Analysis Results (ANOVA^b)

Model		<i>Sum of Squares</i>	df	<i>Mean Square</i>	F	Sig.
1	<i>Regression</i>	15,879	2	7,939	7,678	,017 ^b
	<i>Residual</i>	7,239	7	1,034		
	<i>Total</i>	23,118	9			

a. Dependent Variable: Unemployment Rate

b. Predictors: (*Constant*) , Economic Growth and Population

Based on statistical testing with the F test method, where the significant level obtained is smaller than that is 0,0 % of the significant standard that is 5% or 0.05% and the comparison between F arithmetic and F tables, where F arithmetic of 7.678 is greater than F table namely 4.74, it can be concluded that H_a received or the hypothesis that simultaneous economic growth and the number of people having influence significantly on the unemployment rate.

2. T test (Partial Hypothesis Test)

In this study, the effect of the independent variable partially bound was tested by t-test. This test is carried out with a significance level of 5%. The criteria used in testing this is that if $t_{\text{arithmetic}} > T_{\text{table}}$, it means that the two independent variables partially affect the dependent variable. Conversely, if $t_{\text{arithmetic}} < t_{\text{table}}$, then the three independent variables partially do not significantly influence the dependent variable.

The results of the calculation of t arithmetic and its comparison with t table are as
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follows.

Table 9:
Partial T Test Results (^a Coefficients)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	4,300	, 669		6,424	, 000
Economic growth	, 043	, 115	, 083	2,375	, 719
Total population	, 500	, 131	, 850	3,828	, 006

a. *Dependent Variable:* Unemployment Rate .

From the table above . it can be seen that the results of testing the hypothesis of the population show the t value of 3.828 and t table value of 2.306 which means that the hypothesis in this study accepts H_a and rejects H_o . Thus it can mean that hypothesis H_3 " Population has a significant effect on the unemployment rate ".

CLOSING

Conclusion

1. The results of simultaneous hypothesis testing are known to mean economic growth and population influence the unemployment rate.
2. The results of hypothesis testing are partially known means economic growth and population respectively influence the unemployment rate.

Suggestions

1. Indragiri Hulu regency government is suggested to suppress or reduce the growth rate of unemployment with some program, one of a training program at the Vocational Training Center (BLK) for residents who still unemployment, to have skills and can work.
2. The Government of Indragiri Hulu Regency is advised to be able to increase economic growth, one way is by providing training and assistance in the field of entrepreneurship for workers who are not absorbed in the industrial sector, and suppress the rate of population growth by, providing socialization every one household two children is enough, even happy and prosperous.

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