EFFECT OF URBANIZATION AND GROWTH RATE POPULATION OF EXPECTATIONS LIFE IN INDONESIA

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Abstract

The driving factor for villagers to urbanize is the lack of jobs in their home areas. Agriculture is the main sector that is relied on by the population, meanwhile, the number of fertility is increasing, which results in unfulfilled needs. Poverty in the village is a driving factor for villagers to migrate. Population growth in an area occurs due to several population factors, including birth (fertility), death (mortality) and also population migration. Population growth is a dynamic balance between the forces that increase and those that reduce the number of people. More and more people are afflicted with a disease means that it will destroy vitality, productivity,

Keywords: *Population,Urbanization, Life Expectations, OLS*

1. INTRODUCTION

Urbanization is influenced by three factors, namely population growth in urban areas, migration from rural areas to urban areas, and reclassification of rural villages to urban villages. The projection of the population of urban areas in this projection is not carried out by making assumptions for these three factors, but based on differences in population growth rates in urban and rural areas (Urban Rural Growth Difference / URGD).

Population growth is an important indicator in a country. The classical economists who were pioneered by Adam Smith even considered that the population was a potential input that could be used as a production factor to increase the production of a household company. The more the population, the more labor that can be used.

As the population continues to increase, there is much that must be declared to cope with the situation of the growing population. The population growth is getting faster, inviting many problems. But this does not mean that in ancient times the population problem did not exist. In line with the development of the world's population, Indonesia is also a developing country that cannot be separated from its rapid population growth.

2. LITERATURE STUDY

Urbanization

Urbanization is influenced by three factors, namely population growth in urban areas, migration from rural areas to urban areas, and reclassification of rural villages to urban villages. The projection of the population of urban areas in this projection is not carried out by making assumptions for these three factors, but based on differences in population growth rates in urban and rural areas (Urban Rural Growth Difference / URGD). However, by making URGD assumptions for the future, it means that this projection has indirectly considered these three factors. At the national level, the level of urbanization is projected to reach 66.6 percent by 2035. For several provinces, especially provinces in Java and Bali, the level of urbanization is already higher than that of Indonesia in total.

The real urbanization is the proportion of the population living in urban areas (urban area). Urban (urban area) is not the same as a city (city). What is meant by urban (urban)

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is an area or area that meets three requirements, namely as follows.

a. Population density of 5000 people or more per square km.
b. The number of households working in the agricultural sector is 25% or less.
c. Has 8 or more types of urban facilities.

Urbanization is much influenced by natural processes which include birth and death rates, natural disasters, environmental changes and socio-economic problems including individual income, education, health, basic facilities, industrialization and government policies.

There are factors that cause urbanization, including pull and push factors. The pull factor is a condition that causes someone to be attracted to move from rural to urban areas because there is an attraction that is offered. The driving factors consist of health facilities, high standards of living, decent education standards, the existence of recreational areas, high employment opportunities, the existence of security for life as well as the existence of better property and a better social environment.

The driving factor is the factor that causes a person to move to an urban area due to unfavorable rural conditions. Driving factors include poverty, low living standards, low life security, lack of transportation and communication facilities, lack of employment opportunities, minimal health facilities and also low quality of education.

Urbanization is not merely seen as a population phenomenon, but more than that, urbanization must be seen as a political, social, cultural and economic phenomenon. Various studies show that the more advanced the economic level of a region is, the higher the level of urbanization. Thus, urbanization is a natural phenomenon in line with economic development and the level of welfare of the population in an area. Things that must be considered or avoided in relation to urbanization are the presence of high or excessive population concentrations in an area, causing what is called agglomeration or primacy.

Indonesia applies an urbanization policy through two approaches. First, developing rural areas to be more advanced by having the characteristics of urban areas known as "rural urbanization". Second, developing new economic growth centers known as “growth center buffer zones”. The first approach seeks to "accelerate" the rate of urbanization without waiting for economic growth, namely by making several non-economic breakthroughs.

Population Growth Rate

Population growth is an important indicator in a country. The classical economists who were pioneered by Adam Smith even considered that the population was a potential input that could be used as a production factor to increase the production of a household company. The more the population, the more labor that can be used.

As the population continues to increase, there is much that must be declared to cope with the situation of the growing population. The population growth is getting faster, inviting many problems. But this does not mean that in ancient times the population problem did not exist. In line with the development of the world's population, Indonesia is also a developing country that cannot be separated from its rapid population growth.

Mulyadi (2006: 15) population growth is a dynamic balance between the forces that increase and the forces reduce the population. Bachrawi Sanusi (2004: 79) rapid population growth means that it will exacerbate the pressure on workplaces and lead to unemployment. Also the problem of providing food is increasing in number.

Population Growth Factors Population growth in a country is strongly influenced by 3 things, namely birth (fertility), death (mortality) and population movement (migration). On this occasion we will examine the three.

a. Birth (fertility). The rate of population growth through the birth of a baby in an area in a certain period.
b. Death (mortality). Reduction of population through death in an area in a certain period.

c. Displacement of population (migration). Migration of population from one place to another and is not affected by territory. There are 2 (two) migrations, namely permanent and non-permanent.

There are two different views regarding the influence of population on development. First, is the pessimistic view which argues that population (rapid population growth) can lead to and encourage resource depletion, lack of savings, environmental damage, ecological destruction, which in turn can lead to social problems, such as poverty, underdevelopment and hunger. The second is an optimistic view which argues that the population is a possible asset to encourage economic development and the proliferation of technological and institutional innovations so as to encourage improvements in social conditions (Rohani, 2016). Population impacts economic development through population size, savings, labor structure, technological advances. and industrialization. However, these impacts interact with each other in the long term (Wanjun et al., 2013). Jeon (2013) argues that one of the main causes of slow growth in some middle-income countries is the slow transformation of agriculture. Malthus's theory in Skuocene (2009: 85) basically states that the earth's resources cannot keep up with the needs of an ever-increasing population, as a result, unlimited human needs are inversely proportional to the amount of natural resources used as a means of satisfying limited human needs. This will encourage people to approach the poverty line because of the tight competition in fulfilling their needs. Jeon (2013) argues that one of the main causes of slow growth in some middle-income countries is the slow transformation of agriculture. Malthus's theory in Skuocene (2009: 85) basically states that the earth's resources cannot keep up with the needs of an ever-increasing population, as a result, unlimited human needs are inversely proportional to the amount of natural resources used as a means of satisfying limited human needs. This will encourage people to approach the poverty line because of the tight competition in fulfilling their needs. Jeon (2013) argues that one of the main causes of slow growth in some middle-income countries is the slow transformation of agriculture. Malthus's theory in Skuocene (2009: 85) basically states that the earth's resources cannot keep up with the needs of an ever-increasing population, as a result, unlimited human needs are inversely proportional to the amount of natural resources used as a means of satisfying limited human needs. This will encourage people to approach the poverty line because of the tight competition in fulfilling their needs.

Life Expectancy

Life Expectancy Rate (AHH) is a tool for evaluating the performance of the government in improving the welfare of the population in general, and increasing the degree of health in particular. Life Expectancy Rate describes the average age reached by a person in the mortality situation prevailing in the community. Low life expectancy in an area indicates that health development has not been successful, and the higher the AHH, the more successful the health development in that area is.

Mils and Gilson (1990) in Dimas (2010) define health economics as the application of theories, concepts and techniques of economics in the health sector, so that health economics is closely related to matters, namely the allocation of resources among various health efforts, the number of resources. resources used in health services, organizing and financing of various health services, the efficiency of allocating and using various resources and the impact of prevention, treatment and health recovery efforts on individuals and communities.

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3. RESEARCH METHODOLOGY

In this study, the data source used was secondary data obtained from the World Bank, the Central Bureau of Statistics (BPS), and related agencies. Secondary data used is the Indonesian timeseries data from 1985-2019 (35 years), in the form of data on urbanization (people), total population (people) and life expectancy (year).

Model Specifications

The analytical tool in this study uses multiple linear regression analysis based on Ordinary Least Square (OLS) with time series data along with statistical tests and classical assumption tests which aim to determine whether the data is worth estimating and to see the effect simultaneously on the dependent variable. The data processing tool used is the E-views 9.0 program. The following regression equation model is used:

$$LEt = \beta 0 + \beta 1 logUt + \beta 2 logPt + e$$

Information:

LE	= Life Expentency
β0	= Intercept /regression constant
β1, β2,	= Coefficient of Estimation
U	= Urbanization
P	= Population
e	= error /random error

4. RESULT AND DISCUSSION

Statistic test

Multiple Linear Regression Test

Dependent Variable: Y
Method: Least Squares
Date: 05/15/21 Time: 05:39
Sample: 1985 2019
Included observations: 35

Variable	Coefficien...	Std. Error	t-Statistic	Prob.
C	30.21233	2.993888	10.09133	0.0000
X1	-9.21E-08	2.21E-08	-4.167058	0.0002
X2	2.06E-07	2.34E-08	8.818491	0.0000

R-squared	0.998086	Mean dependent var	66.35200
Adjusted R-squared	0.997966	S.D. dependent var	3.427889
S.E. of regression	0.154584	Akaike info criterion	-0.814340
Sum squared resid	0.764680	Schwarz criterion	-0.681024
Log likelihood	17.25095	Hannan-Quinn criter.	-0.768319
F-statistic	8343.350	Durbin-Watson stat	1.001507
Prob(F-statistic)	0.000000		

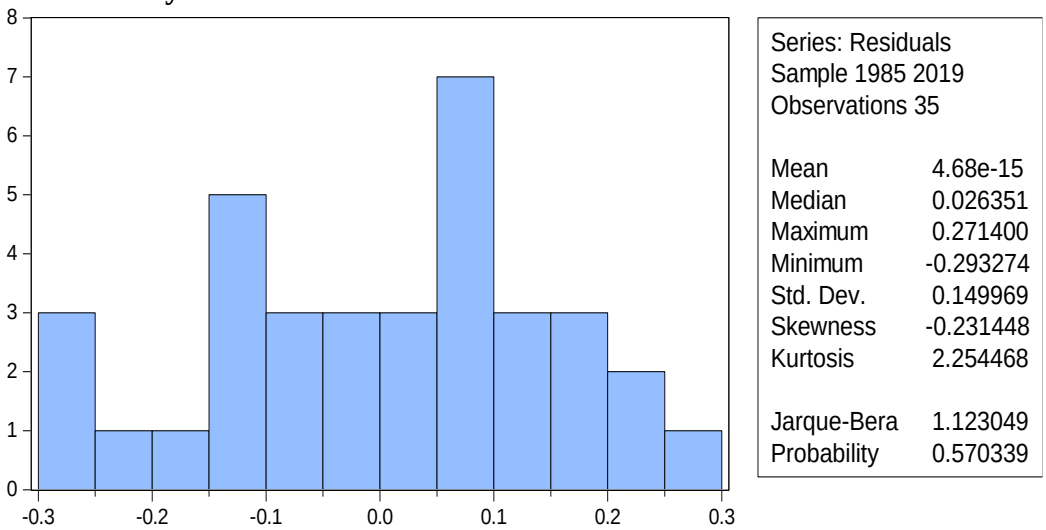
Based on the result of statistical calculations as in table 1 we obtain multiple linear regression results for the per capita economic growth variable as follows:

$$LEt = 30.21233 - 9.21U + 2.06P + e$$

The coefficient results show that the coefficient value for the urbanization variable is 9.21 and has a positive relationship, which means that when the urbanization variable increases, it will reduce life expectancy by -9.21 with a probability value of 0.0002 which is <0.05 degree

of error 5% so that it is statistically significant. significant to life expectancy. And for the results, the coefficient results show that the coefficient value for the urbanization variable is 2.06 and has a positive relationship, which means that when the urbanization variable increases, it will increase life expectancy by 2.06 with a probability value of 0.0000, where <0.05 degrees of error is 5% so that is statistically significant to life expectancy.

Residual Normality Test



The normality test used in this study was the Jarque Bera Test. The results of the residual normality test in the attachment show that the jarque value is 1.914306 with a p value of 0.57 where it is> 0.05. so that H0 is accepted, which means that the data distribution residuals are normal.

Multicollinearity Test

Variance Inflation Factors
Date: 05/15/21 Time: 05:02
Sample: 1985 2019
Included observations: 35

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	8.963368	13128.33	NA
X1	4.88E-16	7217.544	769.5541
X2	5.46E-16	38710.82	769.5541

The data above shows that the Centered VIF value for both the Urbanization Variable and the Total Population is above or greater than 10, so it can be stated that there is a multicollinearity problem in the model.

Heterokedesticity test

Dependent Variable: RESABS
Method: Least Squares
Date: 05/15/21 Time: 05:47
Sample: 1985 2019
Included observations: 35

Variable	Coefficien...	Std. Error	t-Statistic	Prob.
C	0.273570	1.534846	0.178239	0.8597
X1	2.47E-09	1.13E-08	0.217673	0.8291
X2	-1.76E-09	1.20E-08	-0.147004	0.8841

R-squared	0.108018	Mean dependent var	0.124139
Adjusted R-squared	0.052269	S.D. dependent var	0.081405
S.E. of regression	0.079249	Akaike info criterion	-2.150626
Sum squared resid	0.200973	Schwarz criterion	-2.017311
Log likelihood	40.63596	Hannan-Quinn criter.	-2.104606
F-statistic	1.937586	Durbin-Watson stat	1.435038
Prob(F-statistic)	0.160582		

Based on the data above, the probability value is> 0.05, which means that there is no heterocadicity problem in these variables.

Determination Coefficient Test (R2)

From the results of the calculation of multiple linear regression analysis, it can be seen that the value of the R2 coefficient is 0.99 which is almost close to 1. This means that the per capita economic growth in Indonesia during the 1985-2019 period can be explained by about 99% by the variables of Urbanization and Population. While the remaining 1% is explained by other variables not included in this research model.

F Test Statistics

The F test aims to determine the effect of all independent variables together (simultaneously) on the dependent variable.

Dependent Variable: Y
Method: Least Squares
Date: 05/15/21 Time: 05:39
Sample: 1985 2019
Included observations: 35

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X1	-9.21E-08	2.21E-08	-4.167058	0.0002
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Sum squared resid	0.764680	Schwarz criterion	-0.681024
Log likelihood	17.25095	Hannan-Quinn criter.	-0.768319
F-statistic	8343.350	Durbin-Watson stat	1.001507
Prob(F-statistic)	0.000000		

In the table above, it is found that the F-count value with a significance level of 5% or 0.05 is 8343> F-table (0.343) and the F-count Probability value is 0.000 <0.05, so it can be concluded that H1 is accepted, that the independent variable is simultaneously (together) affect the dependent variable.

5. CONCLUSION

Urbanization

Population migration causes an increase and decrease in the number of people in an area. The most visible form of migration in Indonesia is urbanization. The proportion of the population of cities in Indonesia continues to increase. The percentage of the population of the city of Jakarta has reached 100 percent, meanwhile, the highest proportion is followed by the Riau Islands Province which reached 83.18 percent of the population living in urban areas. Meanwhile, the islands of West Java, Yogyakarta, Bali, North Kalimantan and East Kalimantan are classified as high urban population, ranging from 61 percent to 80 percent. Cities in the province are the choice of villagers to improve standards and quality of life.

The driving factor for villagers to urbanize is the lack of jobs in their home areas. Agriculture is the main sector that is relied on by the population, meanwhile, the number of fertility is increasing, which results in unfulfilled needs. Poverty in the village is a driving factor for villagers to migrate. There is a link between increasing and decreasing GDP of a country and the level of urbanization. When viewed from an economic perspective, the urbanization process is able to increase productivity and greater efficiency in the allocation of national resources. However, on the other hand, urbanization can become an additional fiscal burden related to infrastructure improvements.

Rural areas will suffer losses because more and more people lose their more productive human resources. On a broader scale, it will greatly disrupt the growth of small and medium-sized cities, especially outside Java, growth will be slow and will be increasingly lagging behind. The RPJMN has provided a clear picture that this unbalanced urban growth coupled with development disparities between regions has resulted in uncontrolled urbanization. Physically this is shown by 1) the expansion of urban areas due to the rapid development and expansion of the fringe area, especially in big and metropolitan cities; 2) the expansion of urban physical development in sub-urban areas that have integrated smaller cities around the main city and formed uncontrolled conurbations; 3) increasing the number of rural-urban areas; 4) reclassification (changes in rural areas to urban areas, especially in Java); 5) the trend of population growth in the core cities in metropolitan areas has decreased and vice versa in the surrounding areas has increased (urbanization in rural areas).

Population Growth Rate

Population growth in an area occurs due to several population factors, including birth (fertility), death (mortality) and also population migration. Population growth is a dynamic balance between the forces that increase and those that reduce the number of people. The population will continuously be affected by the increase in the number of births (fertility), but at the same time it will also be reduced by the number of deaths (mortality) that occurs at all age groups, and migration also plays a role as immigrants (migrants) will increase and emigrants will reduce the population. (Ida Bagoes Mantra, 2003). The population will continue to increase from time to time and of course it will affect changes from time to time as well, In line with changes in population and all forms of activity, in other words, the population will interact with each other in their efforts to meet all their needs. The high rate of population growth in certain areas will cause the population to increase rapidly.

Life expectancy

More and more people are afflicted with a disease means that it will destroy the vitality, productivity, efficiency and even weaken the initiatives and social activities of the workforce. Furthermore, it is said by Komaruddin (1993) that low per capita income can reflect an

economic production power of the people in the area concerned, and in this case health is another index of economic and social efficiency.

According to the World Health Organization (WHO) in 1948, the definition of health is a condition of physical, mental, social welfare and not just a condition of illness or weakness. In statute, N0. 23 of 1992, health is a state of well-being of body, soul and society that allows everyone to live productively socially and economically. Health effort is any activity to maintain and improve health carried out by the government and / or society.

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