Management and Economics

The Role of Human Capital in improving Regional Economic Growth in East Nusa Southeast

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Abstract:

The purpose of this study is to analyze the influence of human capital on regional economic growth in East Nusa southeast in 2016-2021. The data used in this research is secondary data. The data in this study are in the form of data documentation from Central Bureau of Statistics (BPS). The analytical tool used is panel regression with the GLS fixed effect model method. The results of this study are human capital variables, namely life expectancy and the average length of schooling have a positive and significant effect on regional economic growth in East Nusa southeast. Labor variables and the ratio of the General Allocation Fund have a significant effect on regional economic growth in East Nusa Southeast Province. It is necessary to increase the allocation of regional expenditures for the education and health sectors to improve the quality of the workforce so that they are able to have high productivity that can encourage economic growth in various districts/cities in NTT Province.

Keywords: Human capital, economic growth

Introduction

Basically, development is defined as a planned change process to improve various aspects of people's lives. Development can also be interpreted as the result of a program or activity planned by the government which is intended for the community in supporting the achievement of social welfare, social economic goals, political demography and so on. While the implementation of development as a method or strategy that is directed at achieving the goals that have been determined. A business or a series of business activities for growth and change that is planned and carried out consciously by a nation and state and the government in the context of developing the nation is also the definition of development. According to Tikson (2005), national development can be interpreted as a deliberate economic, social and cultural transformation through a policy intervention and strategy towards the desired direction.

As an effort that is consciously carried out by a nation, state and government, development is planned in the context of achieving national goals through planned growth and change towards a

modern society (S.P. Siagian: 2012). From these definitions, it can be seen that in achieving national goals, every country needs to carry out various development activities, because development is a dynamic process to achieve community welfare. According to Kuncoro (2006:34) the benchmarks of development activities both at the national and regional levels are classified into two main indicators, namely economic and social indicators. Regional economic development is a process in which local governments and their communities manage existing resources and form a partnership pattern between local governments and the private sector to create new jobs and stimulate the development of economic activities at the regional level. The main problem in regional development lies in the emphasis on development policies that are based on the peculiarities of the region concerned (endogenous development) by using the potential of human resources, institutions and physical resources locally (regional). This orientation leads to the determination of initiatives in the regions in the development process in order to create new job opportunities and stimulate an increase in economic activity.

The economic condition of NTT Province since being affected by COVID-19 until now has gradually recovered as seen in the portrait of NTT's economic performance in the first quarter of 2021 which grew positively to 0.12 percent, slightly better than the fourth quarter of 2020 which contracted at the level of 2.27 percent. The vaccination program that has been conceptualized since the beginning of 2021 has been able to encourage the optimism of the community and business actors in NTT to return to their activities properly. Meanwhile, from the aspect of government spending, the economic recovery came mostly from private sector investment and consumption. In the aspect of business field development (LU), economic improvement mainly comes from business fields in the agriculture, forestry and fisheries sectors which are also the main businesses of the

people in NTT. For the economic performance of NTT in the second quarter of 2021, it also continues the recovery trend in positive synergy with the vaccination program. As an effort to prevent the spread of COVID-19 through vaccination and national religious holidays, it has the potential to further encourage public and business people's optimism in increasing their economic mobility.

From the aspect of the budget sourced from the APBD and APBN, the realization of total government spending in NTT Province in 2021 increased compared to the previous year. Aspects of the increased performance in expenditures were mainly sourced from the capital expenditures of the State Budget, which were directed towards capital expenditures, in line with the completion of infrastructure projects that had been delayed in the previous year. However, the spending performance of the Provincial, City and Regency Governments (APBD) has declined, in line with budget refocusing and the migration of regional financial models to the Regional Government Information System (SIPD). The performance of regional financial revenues declined, in line with the adjustment of revenues on the transfer side from the central government, as well as the performance of regional original revenues (PAD) which generally also declined. The inflation rate for NTT Province in 2021 was recorded at 0.78 percent, higher than inflation in the previous quarter which was 0.61 percent. However, the inflation rate is lower when compared to the national level inflation, which is in the range of 1.37 percent. Meanwhile, with the occurrence of Cyclone Seroja which occurred in early April 2021, it has increased inflationary pressure caused by damage to agricultural land, livestock deaths, damage to fishing boats and damage to other food ingredients factories.

In general, the stability of financial conditions in NTT Province in 2021 to early 2022 is still maintained at a stable level, although the profitability and financial intermediation function of the regional government has decreased slightly, along with the level of public

consumption that has not fully recovered due to the corona virus outbreak. In the banking sector, third party funds grew by 3.65 percent, an increase compared to the previous quarter, supported by individual savings that continued to increase as a result of the recovery in public confidence. However, credit disbursement slowed slightly with growth of 3.60 percent because there were still doubts from the banking sector about the unstable economic condition of the people. Corporate business loans experienced a high growth of 39.61 percent, however, business loans for the MSME sector contracted by 2.05 percent. Overall, credit quality was maintained, with a Non Performing Loan (gross) position of 1.93 percent.

Meanwhile, the number of the workforce in NTT Province at the end of 2021 was recorded at 2.88 million people, an increase of 6.99 percent from the previous year. The open unemployment rate increased to 3.38 percent. Nevertheless, labor conditions are still indicated to be improving, which is reflected in the number of workers affected by Covid-19 which has decreased compared to the period in August 2020. The exchange rate of farmers is still low, which is in a fairly high range of 94.65. Meanwhile, the poverty ratio in NTT Province was still recorded at 21.21 percent, an increase compared to 2020. Annually, the economic growth of NTT Province until the end of 2021 increased compared to the realization of economic growth in 2020 which contracted by 0.83 percent. The economic performance of NTT Province is supported by increased investment, improved performance of public consumption and the acceleration of the fiscal role as a countercyclical.

Regarding the development of human development, the average length of schooling for the population aged 15 years and over in East Nusa Tenggara is 7.63 years. This figure is an increase of 1.05 percent compared to 2020, which is 7.55 years. This shows that the average population of NTT attends only up to grade 1 junior high school (SMP). The average length of

schooling is below the national average of 8.48 years in 2021. Meanwhile, the expected length of schooling in NTT is 13.18 years. This figure is an increase of 0.23 percent when compared to 2020 which reached 13.15 years. This indicates that every NTT resident aged 7 years and over is expected to be able to reach 13 years of schooling or finish Diploma 1 (D1). Unlike the RLS, the HLS in NTT is already higher than the national average of 12.98 years. Meanwhile, the net enrollment rate (NER) at all levels of education in NTT has increased, namely the NER at the elementary school level (SD) rising from 96.16 percent to 96.44 percent. The NER at the junior high school level rose from 69.19 percent to 71.8 percent. Meanwhile, the NER at the high school level (SMA) increased from 53.68 to 60.09. The school participation rate at all age levels of the NTT population will also increase in 2021. In detail, the APS for residents aged 7-12 years will increase from 98.47 percent to 98.57 percent. The APS of NTT residents aged 13-15 years rose from 95.11 percent to 95.25 percent. Meanwhile, the APS of the population aged 16-18 years rose from 75.36 percent to 75.52 percent.

The human development index (HDI) is the main indicator in measuring the success of development. In order to increase the human development index, the aspects that are the focus of attention are the improvement of education standards, health status and family economic quality. These three aspects are related to each other in improving human development. Thus, in the context of human resource development, these three aspects must be considered and managed as a whole. The Human Development Index (HDI) is a comparative measure of life expectancy, educational literacy and living standards for all countries around the world. HDI is used to classify whether a country is a developed country, a developing country or an underdeveloped country and also to measure the impact of economic policies on improving people's quality of life. HDI is also used to measure the average achievement of a country in

3 basic dimensions of human development: a). Live a healthy and long life as seen from life expectancy at birth. b). Knowledge is measured by reading and writing levels in adults as well as a combination of primary and secondary education. c). A decent standard of living is measured by gross domestic product GDP in parity of purchasing power parity in US dollars. Each HDI component is standardized with minimum and maximum values before being used to calculate HDI. The equations used are:

$$\text{Health Dimension}: I_{health} = \frac{AHH - AHH_{min}}{AHH_{maks} - AHH_{min}}$$

$$\text{Education Dimension}: I_{HLS} = \frac{HLS - HLS_{min}}{HLS_{maks} - HLS_{min}}$$

$$I_{RLS} = \frac{RLS - RLS_{min}}{RLS_{maks} - RLS_{min}}$$

$$I_{education} = \frac{I_{HLS} + I_{RLS}}{2}$$

$$\text{Expenditure Dimension}: I_{expenditure} = \frac{I_n(expenditur) - I_n(expenditure_{min})}{I_n(expenditure_{maks}) - I_n(expenditure_{min})}$$

HDI is calculated as the metric average of the health, education and expenditure indices:

$$HDI = 3\sqrt{I\,health} \times I\,education \times I\,expenditure \times 100$$

The main policy as an effort to increase development consists of 4 aspects, namely: a). Improving the quality of life which includes human quality such as physical and spiritual and quality of life such as housing and healthy settlements. b). Improving the quality of productive human resources and efforts to distribute it evenly. c). Improving the quality of human resources capable of utilizing, developing and mastering environmental science and technology. d). Development of institutions that include institutions and legal instruments that support efforts to improve the quality of human resources.

Human Capital:

In various economic, social and statistical literatures, it has been almost 300 years (Abbas, 2001), the concept of human capital has existed and was introduced to the wider community. However, the concept is still being studied further in depth by Mincer (1958), Schultz (1961) and Becker (1962) who are now known as pioneers and initiators of human capital theory. Human capital is a form of capital that is not physically visible which is associated with the knowledge and skills possessed by humans which can be obtained through years of schooling or training that is useful for the production of

goods and services. In line with the main understanding, Kumar (2006) suggests 3 concepts of human capital that can affect economic growth, namely:

1. Human capital is entered as a form of input factor in the production function.

2. The accumulation of human capital produces positive externalities so that members become more productive which causes exogenous growth.

3. The accumulation of human capital induces greater innovation and more research and development (R&D) leading to endogenous growth.

The accumulation of human capital can affect physical capital investment as well as create an effect on growth performance. This is in line with what was stated by Fleisher, et al (2010) that human capital positively affects output and productivity growth in cross-provincial research. Human capital is usually seen as one of the main determinants of competitiveness and economic growth. However, the latest statistics on unemployment and economic growth in the European Union have revealed some of the weak points of this view. Human capital itself does not seem to be a guarantee of economic stability (Čadil, et al, 2014).

Research Methods:

This study uses secondary data for 2015-2020 (5 years). The data used is panel data (pooled time series) which is a combination of time series data and cross-sectional data (times series and cross section). The analytical tool used is panel regression with the GLS fixed effect model method. The models used in this analysis are:

$$Y_{it} = \beta_0 + \beta_1 (AHH)_{it} + \beta_2 (RRLS)_{it} + \beta_3 (TK)_{it} + \beta_4 (DAU)_{it} + \varepsilon_{it}$$

where :

Y	= economic growth
AHH	= Life expectancy
RLS	= Average length of school
TK	= Labor (person)
SDAU	= Ratio of DAU to total regional revenue (percent)
i	= district /city
t	= Year
ε	= residual

Results and Discussion:

The regression equation obtained from the analysis of research data from the variables of life expectancy (AHH), average length of schooling (RLS) and number of workers (TK), as well as the ratio of general allocation funds (DAU) to the independent variable: economic growth in the province NTT are as follows:

$Y_{it} = -24.214 + 0.549AHH_{it} + 0.723RLS_{it} + 1.911TK_{it} + 0.052DAU_{it}$

From the regression equation, it can be explained that:

β_0 = -24.214 means that if there is no change in the variables of life expectancy, average length of schooling, number of workers and economic growth in NTT province will decrease by 24,214.

β_1 = 0.549, this indicates that if there is a change in the life expectancy of one unit, there will be an increase in the economic growth of NT

by 0.549. This shows that life expectancy since birth in NTT has a positive influence on economic growth.

- β_2 = 0.723, this indicates that if there is a change in the average length of schooling of one unit, there will be an increase in economic growth in NTT of 0.723

- β_3 = 1,911, this indicates that if there is a change in the general allocation fund of one unit, there will be an increase in economic growth in NTT of 1,911.

From the results of the analysis above, it shows the importance of increasing human resources through which will have an impact on the whole human development index. If there is serious attention from local governments on indicators that determine human development, such as life expectancy at birth, average years of schooling, an increase in the number of workers and the support for general allocation funds that continues to increase, it will certainly increase economic growth in the province of NTT. This shows how important the role of human capital is in increasing the economic growth of a region or region. Based on data from 2016-2021, the number of workers with elementary school education and below is decreasing, while workers with junior and senior high school education are increasing. This shows that an increase in the average length of schooling in the province of East Nusa Southeast can improve the quality of education for the workforce. This quality improvement affects the productivity of the workforce which in turn encourages economic growth.

In the fixed effect model, each region or region has a different intercept but the magnitude is almost the same from time to time. Likewise, each district/city in NTT will have different basic economic growth characteristics from one district to another. This difference can be seen from the results of the analysis of the dummy variable for the intercept of each district/city in the province of NTT as shown in table 1 below.

Table.1: The results of the Dummy variable analysis of districts/cities in the Province of NTT

County/city	constanta	coefisen
Kupang city	21.705	-22.823
West Sumba	21.331	-22.514
Ngada	21.970	-24.291
Sikka	21.124	-22.412
West Manggarai	20.120	-22.603
Manggarai	20.095	-22.701
Southwest Sumba	20.088	-23.229
East Sumba	20.064	-23.432
Kupang county	19.060	-23.670
South central Timor	19.033	-23.552
North central Timor	19.031	-23.423
Belu	18.976	-23.712
Alor	18.932	-24.590
East Flores	18.905	-24.663
Lembata	17.889	-24.584
Ende	17.874	--24.480
Middle Sumba	17.870	-24.665
East Manggarai	16.866	-25.396
Nagekeo	16.853	-25.672
Malaka	16.847	-25.438
Rote Ndao	15.836	-25.622
Sabu Raijua	14.821	-26.449

Source of data: the results of the author's data. 2022

Based on the results of the analysis shown in table 1, it is known that the largest constant value is Kupang City at 21.705, followed by West Sumba district with a constant value of 21.33. This shows that with the existing independent variables namely life expectancy, average length of schooling, number of workers and total general allocation funds can increase economic growth. Meanwhile for Sabu Raijua disrict which has the lowest constant value of 14,821 which shows that with The available independent variables have not been able to increase economic growth in the area.

Based on data from the Director General of financial balance between the central and local governments, the realization of regional expenditures for the province of East Nusa southeast 2016-2021 for the health sector has increased, in 2016 by 421 billion to 817 billion in

2021. The magnitude of the increase in the allocation of funds shows the seriousness of the regional government in improve public health which will certainly greatly affect the condition of human development in the province of East Nusa Tenggara. This large budget allocation can be used to improve services and ease in accessing public health facilities such as the Community Health Insurance which was launched in 2005. An increase in the allocation of a large health expenditure budget can make it easier for the community to access health facilities which can ultimately improve the quality of life. and productivity as well as boosting regional economic growth significantly. Judging from the labor data by regencies/cities in NTT Province, the average growth in the number of working workers has increased in line with an increase in the level of government investment, both from the government and the private sector, which has absorbed a lot of labor.

Conclusion:

The results show that if there is no change in life expectancy, average length of schooling, number of workers and economic growth in NTT province will decrease by 24,214. If there is a change in life expectancy, there will be an increase in NT's economic growth. This shows that life expectancy since birth in NTT has a positive influence on economic growth. If there is a change in the average length of schooling, there will be an increase in economic growth in NTT. Meanwhile, if there is a change in the general allocation fund, there will be an increase in economic growth in NTT. This shows that the province of NTT has a low level of independence with many still expecting the allocation of balancing funds from the central government in the form of general allocation funds to the NTT provincial government.

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