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The effect of government expenditure, economic growth, and population on employment and poverty in East Kalimantan Province (Indonesia)

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Abstract. The sustainability of regional development cannot be separated from the role of the government in overcoming social and economic problems. This study aims to analyze the direct and indirect linkages of government expenditure, economic growth, and population to employment and poverty in East Kalimantan Province. A quantitative-based study approach involving secondary data support. Time series data for 2010-2020 are presented through path analysis techniques. Hypothesis testing is carried out in several stages, starting from the feasibility test of the model, the simple assumption test, partial test, simultaneous test, and the calculation of the indirect effect through the single test. As a result, in structure 1, it is evident that government expenditure and population have a positive and significant effect on employment. From structure 2, only economic growth is ideal or has a negative and significant effect on poverty. As for the indirect effect, government expenditure and population have a negative and insignificant effect on poverty through employment. This also indicates that of the ten proposed hypotheses, only half or five of the hypotheses can be accepted. On the other hand, the other five hypotheses have been rejected.

Keywords. Regional development; Time-series; Path analysis; East Kalimantan.

1. Introduction

The government's efforts to reduce poverty in East Kalimantan are manifested in the main long-term development targets in the East Kalimantan Provincial RPJPD 2005-2025 "Realizing a Just and Prosperous Society in Sustainable Development". To advance East Kalimantan Province in the future, the vision of the East Kalimantan Province RPJMD for the period 2018-2023 was established which was chaired by the elected Governor and Deputy Governor (Dr. H.

Isran Noor, M.Si and H. Hadi Mulyadi, S.Si, M.Si) is "Dare for a Sovereign East Kalimantan" with a mission to achieve a sovereign East Kalimantan in the development of human resources with noble character and competitiveness, especially women, youth, and disabilities. The condition to be achieved through the main points of the RPJMD's vision is a balance between social and economic welfare, as well as environmental aspects. The element that prioritizes the aspect of justice is the implementation of sustainable development with the aim of improving the welfare of the people today and in the future through equitable economic development that is based on improving the quality of human resources.

The Central Bureau of Statistics of East Kalimantan (2020) puts the realization of government expenditure of East Kalimantan Province which is a combination of direct expenditure and indirect expenditure experiencing a slight increase (surplus) in 3 budget periods. The increase in population for 2 years (2018-2019) of 63,565 people or a growth of 1.74% signals that this area is not so dense compared to other areas in Java, Sumatra, and Sulawesi. At the same time, with allocations that support economic development programs, it seems that it can increase the rate of economic growth itself with a gain of 4.77% in 2019 and result in the availability (fulfillment) of jobs in 17 economic sectors (although there has been a slight decline from 2018 to 2019), but in 2020 the growth has actually dropped sharply by -2.85%. Meanwhile, the Poverty Line (GK) from 2019 to 2020 has changed and tends to increase by Rp. 60,467. This can be interpreted that during that period, the welfare of the population increased because if it decreased, the consumption of food and non-food needs would also decrease and vice versa. In addition, if the population in an area has a per capita income below GK, they can be considered poor and need to be paid attention to by the government through targeted policies.

The attention of the East Kalimantan Provincial Government refers to the vision and mission that it has designed, in fact, it is aligned to reduce socio-economic problems such as poverty and per capita welfare by providing the widest possible job opportunities. This is evidenced by the increase in the TPAK number from time to time (2018 to 2020). This also makes it clear if the population who is classified as the labor force (in this case, the productive age from 15 years and over) or trying to find work, tends to be dominant than those who are not included in the workforce (attending school and taking care of the household). As seen so far, this implies that TPAK has grown by around 3.31% in 2018 to 2019 and 2019 to 2020, where the respective gains are 68.87%, 70.44%, and 72.15%.

In this regard, the population in economic development in the East Kalimantan region is a fundamental problem, because uncontrolled and uneven population growth can result in not achieving the goals of economic development, namely people's welfare and reducing poverty. Skuosen (2009: 85) argues that the earth's resources cannot keep up with the needs of the growing population, as a result, unlimited human needs are inversely proportional to the number of natural resources used as a means of satisfying limited human needs. This encourages people to approach the poverty line because of the tight competition to meet their needs.

1.1. Problem and objectivity

The expected government expenditure is the realization of spending that supports productive programs and has an impact on the economy in absorbing labor and reducing the poor. Increasing economic growth means that the production of goods/services produced increases. Thus, an increasing number of workers are needed to produce these goods/services, so that employment and poverty tend to decline.

The level of economic growth, capital expenditure, and population factors that can affect employment opportunities and poverty, needs attention. The downward trend in economic

growth and an increase in the number of poor people will affect social conditions in East Kalimantan Province. The problems and challenges of regional development in the next five years will still be prioritized on basic social problems, including population explosion, the increase in the number of poor and unemployed. The fast growth rate of the labor force and the relatively slow growth of employment causes unemployment problems. Unemployment and poverty rates are a reflection of the success of development in an area. Referring to the background that has been stated earlier, the formulation of the research problem is prepared with the main point of analyzing the effect of government expenditure, economic growth, and population on employment and poverty in East Kalimantan Province.

2. Literature review

2.1. Hypothesis development

The decentralized development approach has led local governments to have broad authority to allocate local government expenditures to improve community welfare through employment and regional economic development. Fiscal decentralization and its impact on regional economic growth are currently developing rapidly through a number of studies conducted in a number of countries, including Indonesia. From a theoretical perspective, there is a uniform argument that states that the proper implementation of fiscal decentralization will encourage an increase in the economic efficiency of the public sector so that it can have a positive impact on regional economic growth. Fiscal decentralization encourages economic efficiency and will dynamically create job opportunities and encourage regional economic growth (Khusaini, 2006:129).

Fiscal decentralization's ability to directly stimulate economic growth, where government expenditure in the form of infrastructure spending allocations is believed to be effective in directly absorbing local labor and encouraging regional economic growth. In addition, the allocation of regional spending on the social overhead will encourage private sector investment that is able to absorb labor, so that output and income can increase, which in turn will increase regional economic growth.

According to Tambunan (2001:98) investment is a factor allocated for infrastructure projects for public needs, crucial for the continuity of the process of economic development (sustainable development), or long-term economic growth. With the existence of production activities, job opportunities and increased community income will be created which in turn can create and increase demand in the market. This opinion explains the effect of investment, where the emergence of investment will encourage job opportunities and an increase in income. Government capital expenditure is a form of investment.

In contrast to Khusaini's (2006: 270) argument, identifying the relationship between the two is indirect, through three mechanisms. First, the positive effect of fiscal decentralization will increase economic efficiency in the aspects of government expenditure and will dynamically promote economic growth. Second, the negative effect of fiscal decentralization causes macroeconomic instrability, thereby disrupting economic growth. Third, the different effects of fiscal decentralization on economic growth can differ between countries and between regions as a result of different institutional and resource potentials. In developing countries, or in underdeveloped regions, the impact can be negative due to weak institutional aspects, the lack of potential economic resources, and the low skill of the workforce to manage natural, social, and financial resources.

Hypothesis 1 (H-1): government expenditure has an effect on employment.

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In line with the theory of government expenditure, namely the increase in government revenue, the relative government expenditure increases. According to Wagner (Wagner's Law) that in an economy when income increases, relative government expenditure will also increase. Increasing government expenditure will also increase economic activity, this is a condition that leads to economic growth and poverty reduction.

Government expenditure reflects government policy. Government expenditure in the form of capital expenditure is aimed at improving public facilities that drive economic activity. Dumairy (1999: 91) states that the government does a lot of spending to finance its activities. These expenditures are not only for running the daily wheels of the government but also for financing economic activities. This does not mean that the government is involved in doing business, but in the sense that the government must stimulate and stimulate economic activity in general to increase the income of its people.

Government capital expenditure is one form of regional expenditure that affects output expenditure in achieving development and poverty alleviation. This can be seen in the model developed by Rostow and Musgrave in (Todaro: 2004: 222), which connects the development of government expenditure with the stages of economic development that are distinguished between the initial stage, the intermediate stage, and the advanced stage. In the early stages of economic development, the percentage of government investment to total investment is large because at this stage the government must provide the infrastructure. In the middle stage of economic development, government investment is still needed to boost economic growth so that it can take off. At a further economic level, Rostow said that in economic development, government activities shift from providing infrastructure to spending on social activities such as infrastructure, education, old-age welfare programs, public health service programs, and so on.

Hypothesis 2 (H-2): government expenditure has an affects on poverty.

Todaro and Smith (2004: 111) state that population and economic growth is one of the positive factors that have traditionally spurred an increase in labor. A larger number of workers means an increase in the level of production, while a larger population growth means a larger size of the domestic market. However, it is still questionable whether it is true that rapid economic growth will actually have a positive or negative impact on human resource development. Furthermore, it is said that the positive or negative effects of population growth depend on the ability of a region's economic system to absorb and productively utilize the increased labor force.

According to Lewis (1945) and Todaro (2006: 114), a homogeneous and unskilled workforce is considered to be able to move and shift from the traditional sector to the modern sector smoothly and in limited numbers. In this situation, the labor supply contains high elasticity. The increasing demand for labor (from the traditional sector) stemmed from the expansion of modern sector activities. Thus, one of the factors that influence the increase in sectors of economic growth is labor.

The roles of workers/laborers, employers, and the government are needed in responding to the impact of economic activities, such as investment value, economic growth, job opportunities, and available technological advances. It is not only employers who have to bear the impact of the explosion in the number of workers, which is not balanced with the availability of existing employment opportunities. With the understanding and understanding and cooperation of all parties related to the relationship of an industry, a common goal can be achieved, namely prosperous workers/laborers, developing and sustainable companies, and the

government, in this case, can maintain the development or improvement of the economy properly

Hypothesis 3 (H-3): economic growth has an affects on employment.

Economic growth is an indicator to see the success of development and is a condition for reducing poverty levels. The condition is that the result of this economic growth spreads in every class of society, including among the poor (Dawey, 1993: 195).

Todaro and Smith (2004: 61) state that the level of poverty in a country depends on 2 factors, namely, the level of average national income and the width of the income distribution gap.

Economic growth and poverty have a very strong correlation because in the early stages of the development process the level of poverty tends to increase and as it approaches the final stage of development the number of poor people gradually decreases (Kuznet, 1955). According to research by Hermanto and Dwi (2007), it is stated that when the economy develops in an area (a certain smaller country or region) where there is more income to spend and has a good income distribution among these areas, it will reduce poverty.

Hypothesis 4 (H-4): economic growth has an affects on poverty.

When the population growth rate increases based on a certain period, it increases, the employment will increase. This can occur due to a shift in the structure of the economy. The influence of the population dimension increases, due to the availability of adequate job opportunities in accordance with the criteria of job seekers. Another reason, namely the high process of population migration in an area, will also increase the demand for the labor market in a certain area (Ollyviana, 2016: 22).

According to Sukirno (2006: 100) that there is a direct influence between population growth on the level of social welfare. Furthermore, Agustina et al. (2018: 270) show that the rapid population growth in developing countries causes the level of people's welfare to not experience significant improvement and in the long term so that it will experience a decrease in welfare and increase the number of poor people. The population is too large or the population density is too high, which will be an obstacle to economic development in developing countries.

Jhingan (2003: 214) also argues that low per capita income and low levels of capital formation are increasingly difficult for developing countries to sustain a population boom, even if output increases as a result of better technology and capital formation, this increase will be swallowed up by the population. which is too much. As a result, there is no improvement in the real growth rate of the economy.

Hypothesis 5 (H-5): the population has an effect on employment.

The relationship between population and poverty level can have positive and negative effects. This can be seen from the quality aspect of population growth in which population growth has a positive effect if its growth can encourage economic development, meaning that an increase in population can allow an increase in the workforce that can encourage the production sector to increase economic activity. Meanwhile, population growth can have negative consequences if its growth can hinder economic development, meaning that population growth cannot increase production, thereby reducing the need for consumption of production products. Therefore, good economic development is if population growth is smaller than economic growth (Kuncoro, 2013: 149).

The poverty population cycle theory is the main argument of economists who argue that rapid population growth has various adverse economic consequences. Todaro and Smith (2004: 242) state that if the population growth is rapid in a country, it will lead to chronic poverty.

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There is an illustration of a universal trend that the population in a country will increase very rapidly according to a series of measurements. Meanwhile, because there is a process of increasing yield which decreases from a fixed number of production factors, namely land, the food supply will only increase according to the arithmetic series, because the growth in food procurement cannot run adequately or keep pace with population growth so that per capita income. In an agrarian society, per capita income is defined as food production per capita which tends to continue to decline to such a low level that the entire population has to endure a condition slightly above the subsistence level.

Hypothesis 6 (H-6): the population has an effect on poverty.

Wide job opportunities will encourage high productivity. According to Sukirno (2004: 53), the bad effect of low employment opportunities is to reduce people's income which in turn reduces the level of prosperity that a person has achieved. The decline in people's welfare due to unemployment will certainly increase their chances of being trapped in poverty because they have no income. When poverty in a country is very bad, political and social chaos always prevails and has a negative effect on the welfare of society and in the long run.

Arsyad (1997: 258) states that there is a very close relationship between high levels of job opportunities and poverty. For most people, those who do not have permanent or only part-time jobs are always among the very poor groups of people. People who work for a fixed fee in the public and private sectors are usually among the upper-middle class. Everyone who does not have a job is poor, while those who work fully are rich.

Hypothesis 7 (H-7): employment has an affects on poverty.

2.2. Conceptual framework

Based on the theory that has been put forward and to provide an overview of the research concept, a conceptual framework can be made as summarized in Figure 1.

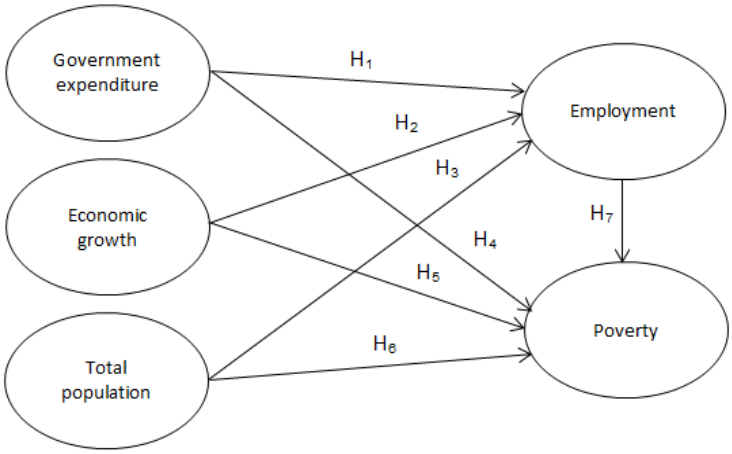

Fig. 1. The proposed model
(*Source:* own ellaboration).

3. Methodology

3.1. Design

This research approach is classified as quantitative. Quantitative research is research that emphasizes the existence of variables as research objects and these variables are defined in the

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form of operationalization of each variable (Siregar, 2013: 110). Quantitative research focuses on disclosing the causal relationship between the variables under study, which is directed to investigate the cause and effect relationship so that in this study there are exogenous and endogenous variables.

Research is based on causality studies, which explain the causal relationship between exogenous and endogenous variables, either directly or indirectly. To determine the effect of exogenous variables, namely government expenditure, economic growth, and population on endogenous variables (employment and poverty) in East Kalimantan Province, in this study, path analysis techniques (analysis model) were used.

The data to support the research use secondary time series data sourced from the Central Bureau of Statistics of East Kalimantan and the Regional Revenue Agency of the Provincial Government of East Kalimantan for 11 periods (2010-2020).

3.2. Data collection

In order to support the presentation of empirical analysis, researchers need to collect a variety of secondary data through literature-based research. Literature techniques include research using library facilities by examining theoretical discussions and data from various books, articles, and scientific papers related to research (Ferdinand, 2006: 52).

3.3. Data interpretation

The analytical tool for interpreting the data is supported by path analysis techniques. This model is a development technique of multiple regression. In addition, path analysis is aimed at examining the magnitude of the contribution shown by the path coefficient on each path diagram of the causal relationship between variables X1, X2, and X3 on Y1 and their impact on Y2. In the path diagram, a one-way arrow is used which states the direct effect of an exogenous variable [causal variable (X)] on an endogenous variable [consequent variable (Y)], for example, X1 → Y (Riduwan and Kuncoro, 2014: 115-116). Path Analysis steps can be seen in the following description:

1. Formulate hypotheses and structural equations:
   a. The effect of government expenditure, economic growth, and population on employment can be expressed in the form of the equation:
      $$\boldsymbol{Y_1 = a + b_1 X_1 + b_2 X_2 + b_3 X_3 + e_1} \quad (1)$$
      Thus, structural model 1 is formed with the statistical notation below:
      $$\boldsymbol{Y_1 = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \mathcal{E}_1} \quad (2)$$
   b. The effect of government expenditure, economic growth, population, and employment on poverty can be expressed in the form of an equation:
      $$\boldsymbol{Y_2 = a + b_4 X_1 + b_5 X_2 + b_6 X_3 + b_7 Y_1 + e_2} \quad (3)$$
      In this way, structural model 2 is formed with statistical notation as follows:
      $$\boldsymbol{Y_2 = \alpha + \beta_4 X_1 + \beta_5 X_2 + \beta_6 X_3 + \beta_7 Y_1 + \mathcal{E}_2} \quad (4)$$
      Where;
      Y_2 = Poverty
      Y_1 = Employment
      X_1 = Government expenditure
      X_2 = Economic growth
      X_3 = Total population
      α = a constant (intercept)
      β_1, β_2, ... β_5 as path coefficients, ε_1 and ε_2 is *error term*

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2. The second step is to develop a diagrammatic model to answer research problems and be based on theory and concept, which can be illustrated in Figure 2.

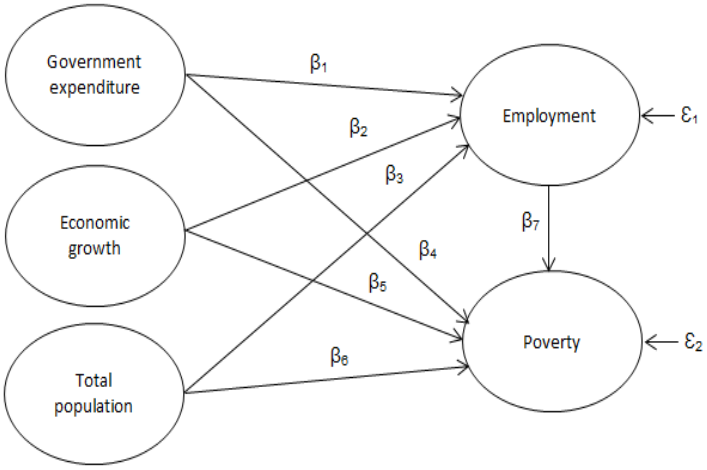

Fig. 2. Set of path coefficients
(*Source:* own elaboration).

3. The third step is to calculate the direct effect and indirect effect. Referring to Figure 2, the calculation can be done directly as follows:
   a. Direct effect, namely the effect of one independent variable on the dependent variable that occurs without going through other dependent variables:
      X_1 to $Y_1 = \alpha\ Y_1 X_1$ (5)
      X_2 to $Y_1 = \alpha\ Y_1 X_2$ (6)
      X_3 to $Y_1 = \alpha\ Y_1 X_2$ (7)
      X_1 to $Y_2 = \alpha\ Y_2 X_1$ (8)
      X_2 to $Y_2 = \alpha\ Y_2 X_2$ (9)
      X_3 to $Y_1 = \alpha\ Y_1 X_2$ (10)
      Y_1 to $Y_2 = \alpha\ Y_2 Y_1$ (11)
   b. The indirect effect, namely the effect of one independent variable on the dependent variable that occurs through other dependent variables contained in one causality model being analyzed is as follows:
      X_1 to Y_2 trought $Y_1 = (X_1\text{-}Y_1\text{-}Y_2)\ (\alpha_1 Y_1 X_1)\ (\beta_1 Y_2 Y_1)$ (12)
      X_2 to Y_2 trought $Y_1 = (X_2\text{-}Y_1\text{-}Y_2)\ (\alpha_1 Y_1 X_2)\ (\beta_2 Y_2 Y_1)$ (13)
      X_3 to Y_2 trought $Y_1 = (X_3\text{-}Y_1\text{-}Y_2)\ (\alpha_1 Y_1 X_2)\ (\beta_3 Y_2 Y_1)$ (14)
   c. Total effect, namely the sum of the direct effect and the indirect effect:
      Direct effect of X_1 to $Y_1 = \beta_1 Y_1 X_1$ (15)
      Direct effect of X_2 to $Y_1 = \beta_2 Y_1 X_2$ (16)
      Direct effect of X_3 to $Y_1 = \beta_3 Y_1 X_2$ (17)
      Direct effect of X_1 to $Y_2 = \beta_4 Y_2 X_1$ (18)
      Direct effect of X_2 to $Y_2 = \beta_5 Y_2 X_2$ (19)
      Direct effect of X_3 to $Y_2 = \beta_6 Y_2 X_2$ (20)
      Direct effect of Y_1 to $Y_2 = \beta_7 Y_2 Y_1$ (21)
      Indirect effect of X_1 to Y_2 trought $Y_1 = (X_1 - Y_1 - Y_2)\ (\alpha_1 Y_1 X_1)\ (\beta_1 Y_2 Y_1)$ (22)
      Indirect effect of X_2 to Y_2 trought $Y_1 = (X_2 - Y_1 - Y_2)\ (\alpha_2 Y_1 X_2)\ (\beta_2 Y_2 Y_1)$ (23)
      Indirect effect of X_3 to Y_2 trought $Y_1 = (X_3 - Y_1 - Y_2)\ (\alpha_2 Y_1 X_2)\ (\beta_3 Y_2 Y_1)$ (24)

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4. The fourth step in path analysis is testing for indirect effects. To analyze the indirect effect of an exogenous variable on endogenous variables through intervening or mediation variables, the Sobel test was carried out (Utama, 2012: 35). The indirect effects tested in this study include:
   a. The indirect effect of government expenditure on poverty is through the employment.
   b. The indirect effect of economic growth on poverty is through the employment.
   c. The indirect effect of population on poverty is through the employment.

   To test the significance of the indirect effect, calculate the z value of the $_{ab}$ coefficient with the following formula:

$$t = \frac{ab}{Sab} \quad (25)$$

   The standard error of the coefficients a and b is written as S_a and S_b, the magnitude of the standard error for the indirect effect S_{ab} is calculated using the following formula:

$$S_{ab} = \sqrt{b^2\, Sa^2 + a^2\, Sb^2 + Sa^2\, Sb^2} \quad (26)$$

   Where;
   a = non-standard coefficient of the effect of exogenous variables on the mediating variable.
   b = non-standard coefficient of the effect of mediating variables on endogenous variables.
   S_a = Standard error of the effect of exogenous variables on endogenous variables.
   S_b = Standard error of the effect of mediating variables on endogenous variables.

   Path analysis in structural models 1 and 2 of this study, the completion of the model is done with the help of the SPSS Program for Windows Release 25.0.

4. Result and Discussion

4.1. Path analysis testing

The results of path analysis and hypothesis testing based on each effect (directly and indirectly) are described in Table 1. Research-based on testing the ten hypotheses based on structure 1 and structure 2, it is known the magnitude of the direct and indirect effects between government expenditure (X1), economic growth (X2), and population (X3) on employment (Y1) and poverty (Y2) in East Kalimantan Province. Based on the model that has been produced, it illustrates that the coefficient of government expenditure and total population on employment is positive so that the increase can be interpreted that if the two variables increase, then the absorption of labor will also increase. Meanwhile, from the other structure 1, economic growth actually has a negative impact on the absorption of labor, so that if the increase is done every unit, it will reduce the absorption of labor.

On the other hand, in sub-structure 2, the researcher finds that the coefficient of economic growth and employment is negative, which indicates that the increase in certain units will reduce poverty. Meanwhile, an increase in government expenditure and population will increase poverty because the coefficient value is positive.

Table 1. Recapitulation of path coefficients and hypotheses

Variables	hypotheses	Unstd. coef. beta	Prob.	Decision
X1 → Y1	H1*	0.102	0.006	Accepted
X2 → Y1	H2*	-0.005	0.627	Rejected
X3 → Y1	H3*	0.236	0.080	Accepted
X1 → Y2	H4**	0.567	0.332	Rejected
X2 → Y2	H5**	-0.299	0.049	Accepted
X3 → Y2	H6**	2.670	0.165	Rejected

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Y1 → Y2	H7**	-1.519	0.740	Rejected
X1 → Y1 → Y2	H8***	-0.154	0.729	Accepted
X2 → Y1 → Y2	H9***	0.007	0.775	Rejected
X3 → Y1 → Y2	H10***	-0.358	0.732	Accepted

(*Source:* SPSS tab)
(*Note:* *) structure 1, **) structure 2, ***) IE).

On the indirect effect, government expenditure and population also have a negative effect on poverty through employment, where the increasing coefficient of the two variables will indirectly reduce poverty through the role of employment. From other exogenous variables, namely economic growth, it appears that it has a positive effect on poverty through employment. This means that if these variables increase through employment, it can actually increase poverty.

From the results of hypothesis testing in each pathway, it is clear that the path (structure 1) has a positive and significant effect so that no path is omitted. In structure 2, there is also a path that has a negative and significant effect. Meanwhile, from the indirect effect, there is a path (through intervening variables) that has a negative and insignificant effect. In accordance with the framework of the research concept, 2 linear functions can be generated, namely structures 1 and 2. The two generated functions are simultaneously combined into a 1 path sub-structure. Independent variables (exogenous) are variables that affect the dependent variable (endogenous). The relationship of the two variables is explained as follows:

1. In function-1, the exogenous variables = X1, X2 and X3, and the endogenous variables = Y1. The direct effect is calculated as in the standardized regression weight (coefficient). At functions-1, X1, X2, and X3 have a direct influence on Y1. The total effect of each independent variable on Y1 is the same as the direct effect. Writing function or structure 1 in standard form as follows:

   Y1 = 0.102 X1 – 0.005 X2 + 0.236 X3 + 0,308 e1 *(27)*

   In the function of this pathway, it can be illustrated that a 1-lane structure that connects government expenditure, economic growth, and population to employment in East Kalimantan is formed through Figure 3.

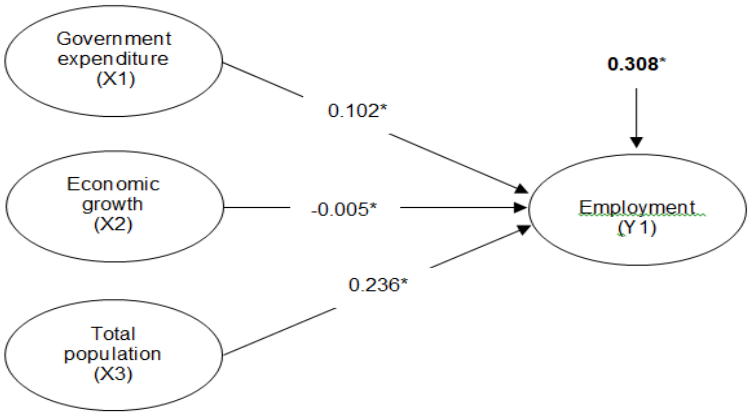

Fig. 3. The relationship between the structures X1, X2, and X3 on Y1
(*Source:* SPSS tab)
(*Note:* *) Relationship in structure 1).

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2. In function-2, the exogenous variables = X1, X2, X3, and Y1, and endogenous = Y2. The direct effect is calculated as in the standardized regression weight (coefficient). Functions-2, X1, X2, X3, and Y1 have a direct influence on Y2. The total effect of each independent variable on Y2 is the same as the direct effect. The writing of function or sub-structure 2 in standard form is:

Y2 = 0,567 X1 – 0,299 X2 + 2,670 X3 – 1,519 Y1 + 0,429 e2 *(28)*

Based on the function of the sub-structure 2, the correlation value can be seen from the previous explanation, it can be described the path between government expenditure, economic growth, population, and employment to poverty in East Kalimantan Province (see Figure 4).

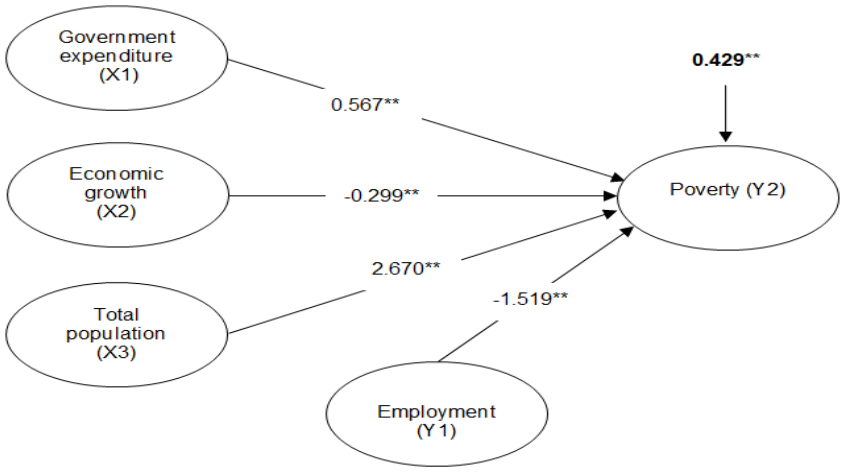

Fig. 4. The relationship between the structures X1, X2, X3, and Y1 on Y2
(*Source:* SPSS tab)
(*Note:* *) Relationship in structure 2).

The next section is the calculation of the total effect which is the sum of the direct and indirect effects with this provision, the total effect of all research variables is described in Table 2. It can be concluded that there are 2 exogenous variables (government expenditure and total population) directly in structure 1 for endogenous variables is positive. Meanwhile, there are 2 variables (economic growth and employment) in sub-structure 2 which directly have a negative impact on endogenous variables. The following is the calculation result of the direct, indirect, and total relationship of each variable through the role of the intervening variables.

Table 2. Summary of the effects of each pathway

Relationship	Direct influence	Indirect influence through Y1	Total effect
X1 ---> Y1	0.102	-	0.102
X2 ---> Y1	-0.005	-	-0.005
X3 ---> Y1	0.236	-	0.236
X1 ---> Y2	0.567	-	0.567
X2 ---> Y2	-0.299	-	-0.299
X3 ---> Y2	2.670	-	2.670
Y1 ---> Y2	-1.519	-	-1.519
X1 ---> Y1 ---> Y2	-	0.102 x (1.519) = -0.154	0.567 + 0.102 x (1.519) = 0.413

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X2 ---> Y1 ---> Y2	-	-0.005 x (1.519) = 0.007	-0.299 + 0.102 x (1.519) = -0.292
X3 ---> Y1 ---> Y2	-	0.236 x (1.519) = -0.358	2.670 + 0.102 x (1.519) = 2.312

(*Source:* SPSS tab).

As a comparison, structure 1 proves that the direct effect involving the population on employment has the highest path coefficient value, namely 0.236. It is inversely proportional if it is compared to the path that connects economic growth to employment is the lowest coefficient with a value of -0.005. In function (second structure), the population actually has a very dominant direct effect on poverty, namely 2,670. Meanwhile, from the pathway on other variables to poverty, the one that gave the most real contribution and the smallest was employment up to -1,519.

The indirect effect of the 8th, 9th, and 10th hypotheses reveals that economic growth is a variable that can increase poverty through the role of employment because the coefficient is the largest, where the value is 0.007. Meanwhile, employment is able to play its role as an intervening variable in the relationship between population and poverty with the result of -0.358 (the smallest coefficient). In terms of the total effect, the overall coefficient value is inversely proportional to the acquisition of the indirect effect. As for the summation obtained, a positive coefficient occurs from government expenditure and population on employment and poverty, where the results are 0.413 and 2.312, respectively. The population size is the variable with the greatest impact. Then, still in a similar causality, only population growth has a negative effect or is in line with expectations because the coefficient is negative.

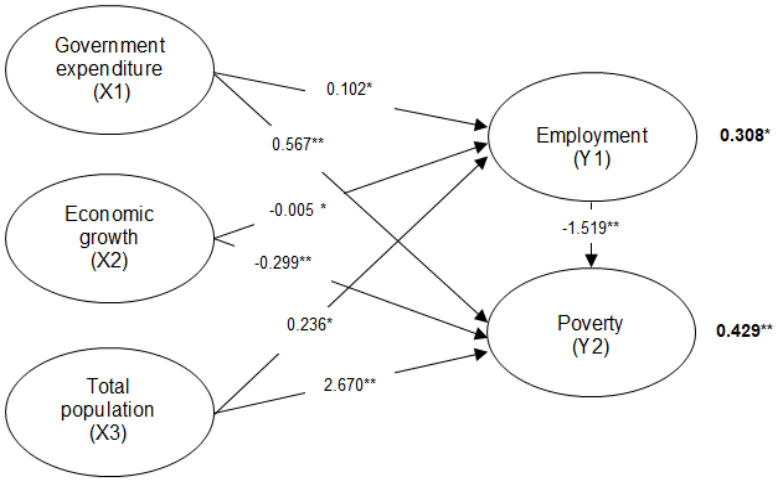

Fig. 5. Completeness of link structure path

(*Source:* SPSS tab)

(*Note:* *) Structure 1, **) Structure 2).

The path analysis based on the two previous structural relationships presented in Figure 3 and Figure 4 has been standardized on unstandardized coefficients beta, which can be broken down into components, structural (causal) and non-structural (non-causal) which are stated in the path diagram. In more detail, each item or component path variable for the structure as a whole is demonstrated in Figure 5.

4.2. Explanation of direct, indirect, and total effects

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As the hypothesis in this study, that the variables of government expenditure (X1), economic growth (X2), and population (X3) on employment (Y1) and poverty (Y2) in East Kalimantan Province. The magnitude of the influence is calculated using path analysis based on the mediated path sub-structure as follows:

1. Direct influence. The analysis of the direct effects of the structure estimates 1 and 2 includes:
   a. The direct effect of government expenditure on employment and poverty is 0.102 and 0.567.
   b. The direct effect of economic growth on employment and poverty is -0.005 and -0.299.
   c. The direct effect of population on employment and poverty is 0.236 and 2.670.
   d. The direct effect of employment on poverty is -1.519.

2. Indirect influence. As the hypothesis has been designed, it takes into account the effect of government expenditure (X1), economic growth (X2), and population (X3) on poverty (Y2) through an intervening variable, namely employment (Y1). The magnitude of the indirect effect is described as follows:
   a. The indirect effect of government expenditure on poverty through employment is 0.102 x (1.519) = -0.154. From the calculation of the Sobel test, the p-value is 0.729. Because this value is obtained with a probability limit of 5% (0.729> 0.05), it is evident that employment is not able to mediate the effect of government expenditure on poverty (see Figure 6).

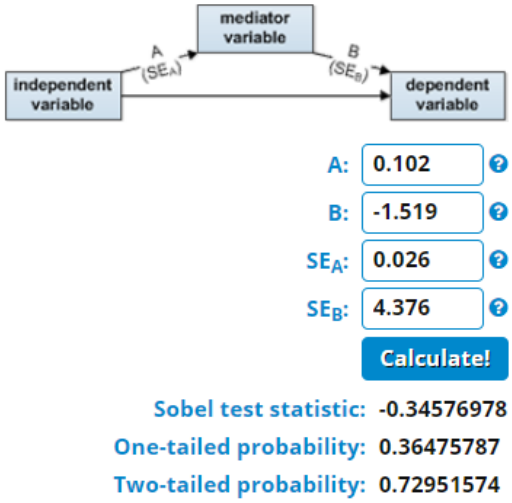

Fig. 6. The indirect effect of X1 to Y2 through Y1

(*Source:* SPSS tab).

   b. The indirect effect of economic growth on poverty through employment is -0.005 x (1.519) = 0.007. From the calculation of the Sobel test, the p-value is 0.729. Since this value is obtained with a probability limit of 5% (0.775> 0.05), it is evident that employment is not able to mediate the effect of economic growth on poverty (see Figure 7).

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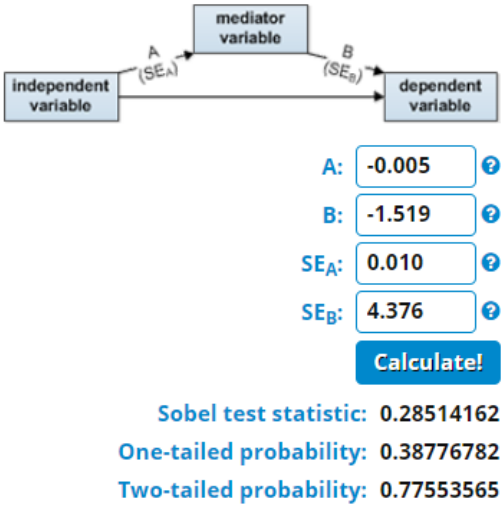

Fig. 7. The indirect effect of X2 to Y2 through Y1
(*Source:* SPSS tab).

c. The indirect effect of population on poverty through employment is 0.236 x (1.519) = -0.358. From the calculation of the Sobel test, the p-value is 0.732. Since this value is obtained with a probability limit of 5% (0.732> 0.05), it is evident that employment is not able to mediate the effect of population on poverty (see Figure 8).

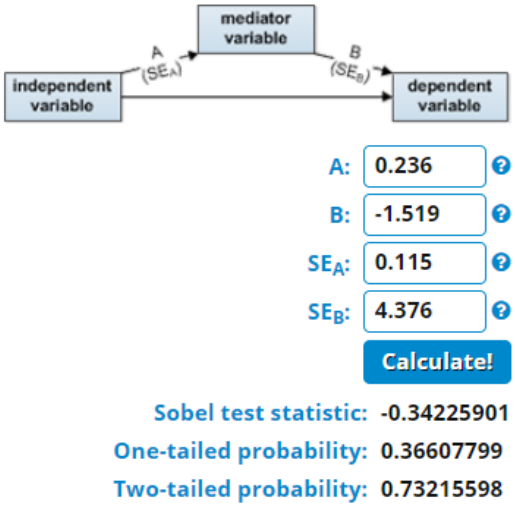

Fig. 8. The indirect effect of X3 to Y2 through Y1
(*Source:* SPSS tab).

3. Total influence. After obtaining the results of the direct and indirect effects, the results obtained by calculating or adding the two effects are the total effect with the following description:
   a. The effects of government expenditure on employment and poverty are 0.102 and 0.567.
   b. The effects of economic growth on employment and poverty are -0.005 and -0.299.
   c. The effects for population on employment and poverty are 0.236 and 2,670.
   d. The effect of employment on poverty is -1.519.
   e. The effect of government expenditure on poverty through employment is -0.154.
   f. The effect of economic growth on poverty through employment is 0.007.

g. The effect of population on poverty through employment is -0.358.

5. Conclusion, future study, and policy implication

Observing the formulation of the problem, the research objectives, and the proposed hypothesis design using path analysis tools, several things that need to be concluded are as follows:

1. Government expenditure directly has a positive and significant effect on employment in East Kalimantan Province. This unidirectional relationship can be explained by the realization of government expenditure in the form of development programs and real work to improve the investment climate, thereby attracting investors to create jobs and attracting local workers to work in companies.
2. Economic growth directly has a negative and insignificant effect on employment in East Kalimantan Province. This unidirectional relationship is explained by the quality of economic growth which only tends to capital-intensive sectors so that the productive age generation is not absorbed as a whole workforce.
3. Total population directly has a positive and significant effect on employment in East Kalimantan Province. This unidirectional relationship is explained by the more rapidly growing population density, the more per capita or household consumption needs are also increasing, so that producers (in this regard companies) need to require large amounts of labor.
4. Government expenditure directly has a positive, but insignificant, effect on poverty in East Kalimantan Province. This unidirectional relationship is explained by government policy intervention with the realization of its expenditure, which does not work optimally to reduce the poverty line of poverty. Expenditures that have been budgeted through training of population resources in the context of improving human capital do not necessarily have a systematic impact in the short term, besides the flow of labor migration to East Kalimantan is uncontrolled and causes job competition to increase.
5. Economic growth directly has a negative and significant effect on poverty in East Kalimantan Province. This unidirectional relationship is explained by the achievement of economic growth in East Kalimantan which is at least able to reduce poverty, where the improvement in the level of welfare can be seen from the purchasing power or the ability of public consumption to increase, even though it is for a while.
6. Total population has a positive, but insignificant, effect on poverty in East Kalimantan Province. This unidirectional relationship is explained by the population phenomenon which is increasing over time, where the uncontrolled population rate becomes an inevitable "time bomb" threat. As a result, density and socio-economic problems also increase in view of the preceding employment opportunities, increasing demand, and increasing unemployment which leads to a widening income gap or inequality.
7. Employment has a negative, but not significant, effect on poverty in East Kalimantan Province. This unidirectional relationship is explained by the level of job opportunities that are open at a certain time, at least opening up expectations for the workforce belonging to the productive age to be absorbed in several economic sectors. By having a job, their hope of getting a decent wage can be achieved and is able to increase household consumption of food and non-food needs, thereby reducing the poverty line.
8. Government expenditure indirectly has a negative, but insignificant, effect on poverty through employment in East Kalimantan Province. This unidirectional relationship is explained by the policy representation of the role of the government through concentrated spending in the fields of education and health-seeking to revitalize human resources so that

they can be competitive and have skills based on the rapidly developing developments of science and technology. Thus, the efforts of the East Kalimantan Provincial government through these efforts support the improvement of human resources for several labor-intensive business fields, so that they are ready for local, national, and regional competition in order to avoid the poverty line.

9. Economic growth indirectly has a positive, but insignificant, effect on poverty through labor in East Kalimantan Province. This unidirectional relationship prompted the inconsistent gains in East Kalimantan's economic growth (even negative in 3 periods) and the increase was not interpreted as a whole to interpret the increase in production capacity (use of labor). This phenomenon is caused by the quantity and quality of growth that is not evenly distributed in all sectors of the economy. Only a few of them involve labor, while the dominant ones rely on capital-intensive business fields so that even though the income value is high, it does not guarantee the welfare of the workforce, therefore there is a widened income distribution resulting in them not being eligible for wages or below standard. minimum and ultimately unable to meet the necessities of life and enter the poverty line.
10. Total population has an indirect, but no significant effect on poverty through labor in East Kalimantan Province. This unidirectional relationship based on population growth in East Kalimantan is a demographic bonus that has the opportunity to produce a productive age that is ready to work for economic sectors. On the positive side, the population in East Kalimantan in some urban areas can do this in several (remote) village areas. What's more, the choice of East Kalimantan as the State Capital (IKN) of Indonesia in 2024, is sure to attract investors to develop and create many jobs. Improved human resources with special training, formal and informal education, and adequate skills, can move them from the poverty line through labor. By improving the quality of life, such as income welfare, it is ensured that they will also have the opportunity to pay attention to proper education and health.

Suggestions given to several related parties in order to support increased employment and reduce poverty in East Kalimantan Province are described as follows:

1. The role of the government, especially the regional government of East Kalimantan Province, must prioritize budget allocations which are considered closely related to manpower and poverty because these two programs are the most effective in improving human resources so that the output can absorb new jobs.
2. The Provincial Government of East Kalimantan, particularly the Office or Regional Apparatus Organization (OPD) which has the authority in the health and population division, is likely to further tighten the Family Planning (KB) program for the poor. The purpose of that is to help them reduce the burden of life to be more productive in their readiness for work.
3. Small, medium, and large-scale entrepreneurs should always pay attention to the welfare of employees by referring to their wage system and health insurance. This is very important by involving labor and the government, to jointly pay attention to working hours, workloads, and safety aspects so that companies do not arbitrarily reduce production costs and increase company value by violating regulations set by the government.
4. Continuous technical efforts are needed as part of the empowerment of the productive age including the workforce through skills development and education programs that are needed by the labor market. The era of digitalization is inevitable, companies should also

adjust to it and not rule out the use of labor that is balanced with the use of technology in an established manner.

5. For future studies, follow-up researchers may consider using relevant data on government expenditure, economic growth, population, employment, and poverty by developing case studies (panel data) and analysis techniques. Therefore, there will be more varied and deeper findings to reveal the socio-economic problems that are currently hot.

References

[1] Afrida, B. R. (2003). *Ekonomi Sumber Daya Manusia*. Ghalia Indonesia, Jakarta.
[2] Agustinus. (2012). Pengaruh Investasi dan Inflasi Terhadap Pertumbuhan Ekonomi serta Implikasinya pada Penyerapan Tenaga Kerja di Kabupaten Kutai Barat. *Tesis (Published)*. Retrieved from http://journal.feb.unmul.ac.id/index.php/JIEM/article/view/5700.
[3] Algifari, A. (2000). *Analisis Regresi, Teori, Kasus dan Solusi*. BPFE UGM, Yogyakarta.
[4] Ananta, A. (2000). *Ekonomi Sumber Daya Manusia*. LPFE-UI, Jakarta.
[5] Arsyad, L. (1997). *Ekonomi Pembangunan*. STIE YKPN, Yogyakarta.
[6] Central Bureau of Statistics of Indonesia. (2010). *Komponen Pengeluaran Komposisi Penduduk*. Hasil Survei Sosial Ekonomi Nasional (SUSENAS) Tahun 2010. Republik Indonesia, Jakarta.
[7] Dawey, K. J. (1993). *Pembiayaan Pemerintahan Daerah: Praktek-Praktek Internasional dan Relevansinya Bagi Dunia Ketiga*. UI-Press, Jakarta.
[8] Djojohadikusumo, S. (1995). *Perkembangan Pemikiran Ekonomi Dasar Teori Pertumbuhan dan Ekonomi Pembangunan*. LP3ES, Jakarta.
[9] Dumairy, D. (1999). *Perekonomian Indonesia*. Erlangga, Jakarta.
[10] Gujarati, D. N. (2008). *Dasar-Dasar Ekonometrika*. Erlangga, Jakarta.
[11] Hendarmin, H. (2012). Pengaruh Belanja Modal Pemerintah Daerah dan Investasi Swasta terhadap Pertumbuhan Ekonomi, Kesempatan Kerja dan Kesejahteraan Masyarakat di Kabupaten/Kota Provinsi Kalimantan Barat. *Jurnal Eksos, 8*(3): 144-155.
[12] Hermanto, S., & Dwi, W. (2007). *Dampak Pertumbuhan Ekonomi Terhadap Penurunan Penduduk Miskin di Indonesia Proses Pemerataan dan Kemiskinan*. Direktur Kajian Ekonomi, Institusi Pertanian Bogor.
[13] Idris, J. (2007). *Analisis Kritis Mutu Pendidikan*. Suluh Press, Yogyakarta.
[14] Juanda, B. (2007). *Metodologi Penelitian Ekonomi dan Bisnis*. IPB Press, Bogor.
[15] Khusaini, M. (2006). *Ekonomi Publik: Desentralisasi Fiskal dan Pembangunan Daerah*. BPFE Unibraw, Malang.
[16] Kuncoro, M. (2001). *Otonomi dan Pembangunan Daerah*. Erlangga, Jakarta.
[17] Kuncoro, M. (2013). *Mudah Memahami dan Menganalisis Indikator Ekonomi*. UPP STIM YKPN, Yogyakarta.
[18] Kuznets, S. (1955). Economic Growth and Income Inequality. *The American Economic Review, 45*(1): 1-28.
[19] Lewis, M Arthur. (1945). *Economic Development with Unlimited Supplies of Labour*. *The Manchester of School, 22*(2): 139-191.
[20] Mahmudi, M. (2009). *Manajemen Keuangan Daerah*. Erlangga, Jakarta.
[21] Mardiasmo, M. (2002). *Otonomi dan Manajemen Keuangan Daerah*. Andi Offset, Yogyakarta.
[22] Mulyono, M. (1997). *Pengangguran Tenaga Kerja Terdidik*. Bumi Aksara, Jakarta.
[23] Nurkse, R. (1953). *Problems of Capital Formation in Underdeveloped Countries*. Oxford

Basis Blackwell, Oxford.
[24] Pratama, Rendytiar Septianda. (2010). Analisis Pengaruh Pengeluaran Pembangunan Pemerintah Per Fungsi Di Sektor Pendidikan, Kesehatan dan Transportasi Terhadap Tingkat Kemiskinan Kabupaten/Kota Provinsi Jawa Timur Periode 2005-2009. *Tesis (Published)*. Fakultas Ekonomi dan Bisnis, UNAIR, Surabaya. Retrieved from http://repository.unair.ac.id/1487/.
[25] Priyatno, D. (2009). *SPSS untuk Analisis Korelasi, Regresi, dan Multivariate*. Gava Media, Yogyakarta.
[26] Sitepu, R. K., Sinaga, B. M., & Tambunan, M. (2012). Dampak investasi sumberdaya manusia terhadap pertumbuhan ekonomi dan kemiskinan di indonesia: pendekatan model computable general equilibrium (the impact of human capital investment on economic growth and poverty in indonesia: computable general equlibrium. *SOCA: Jurnal Sosial Ekonomi Pertanian, 7*(2): 117-127. Retrieved from https://ojs.unud.ac.id/index.php/soca/article/view/4203.
[27] Ridwuan, R. (2009). *Dasar-Dasar Statistika*. Alfabeta, Bandung.
[28] Riduwan, R., & Kuncoro, E. A. (2014). *Cara Mudah Menggunakan dan Memakai Path Analysis (Analisis Jalur)*. Alfabeta, Bandung.
[29] Sharp, A. M. (1996). *Economics of Social Iissues (Edisi ke 12)*. In: Richard D. Irwin. Bab VII. Chicago.
[30] Simanjuntak, P, J. (2001). *Pengantar Ekonomi Sumber Daya Manusia (Edisi 2001)*. Fakultas Ekonomi, Universitas Indonesia, Jakarta.
[31] _____. (2005). *Pengantar Ekonomi Sumber Daya Manusia*. FE-UI, Jakarta.
[32] Simmons, B. L. (1990). Rethinking Empowerment. *Journal of Progresive Human Services, 1*(1): 27-39.
[33] Siregar, S. (2013). *Metode Penelitian Kuantitatif*. Kencana Prenada Media Group, Jakarta.
[34] Sirojuzilam, S. (2008). *Disparitas Ekonomi Dan Perencanaan Regional*. Pustaka Bangsa Press, Medan.
[35] Sudarsono, S. (1998). Penetapan Sasaran Kesempatan Kerja dan Produktivitas Tenaga Kerja. *Seminar Nasional: Peningkatan Produktivitas Nasional*. PAU Studi Ekonomi. UGM, Yogyakarta.
[36] Sugiyono, S. (2010). *MetodePenelitian Kuantitatif Kualitatif & RD*. Alfabeta, Bandung.
[37] _____. (2012). *Metode Penelitian Administrasi*. Alfabeta, Bandung.
[38] Sukirno, S. (1985). *Ekonomi Pembangunan: Proses, Masalah dan Dasar Kebijakan*. Fakultas Ekonomi Universitas Indonesia, Jakarta.
[39] _____. (2000). *Makro Ekonomi Modern Perkembangan Pemikiran Klasik hingga Keynesian Baru*. Raja Grafindo Persada, Jakarta.
[40] _____. (2004). *Makroekonomi Teori Pengantar: Edisi Ketiga*. Raja Grafindo Persada, Jakarta.
[41] _____. (2008). *Mikroekonomi Teori Pengantar: Edisi Ketiga*. Raja Grafindo Persada, Jakarta.
[42] Sumarsono, S. (2003). *Ekonomi Manajemen Sumber Daya Manusia dan Ketenagakerjaan*. Graha Ilmu, Yogyakarta.
[43] Sunusi, D. K., Kumenaung, A., & Rotinsulu, D. (2014). Analisis Pengaruh Jumlah Tenaga Kerja, Tingkat, Pendidikan, Pengeluaran Pemerintah Pada Pertumbuhan Ekonomi dan Dampaknya Terhadap Kemiskinan di Sulawesi Utara Tahun 2001-2010. *Jurnal Berkala Ilmiah Efisiensi, 14*(2): 120-137.
[44] Sunyoto, D. (2010). *Uji Khi Kuadrat Dan Regresi Untuk Penelitian.* Graha ilmu,

Technium Social Sciences Journal
Vol. 20, 510-528, June, 2021
ISSN: 2668-7798
www.techniumscience.com

Yogyakarta.
[45] Suwarno, J. (2005). *SPSS Teori dan Latihan*. Danamartha Sejahtera Utama, Bandung.
[46] Tambunan, T. (2001). *Perekonomian Indonesia Teori dan Temuan Empiris*. Ghalia Indonesia, Jakarta.
[47] Tan, S. (2014). *Perencanaan Pembangunan*. Fakultas Ekonomi dan Bisnis, Universitas Jambi, Jambi.
[48] Tirtarahardja, U., & Sulo, L. (1994). *Pengantar Pendidikan*. Dirjen Dikti DEPDIKBUD, Jakarta.
[49] Todaro, M. P. (1994). *Ekonomi untuk Negara Berkembang*. Edisi Ketiga (Terjemahan). Bumi Aksara, Jakarta.
[50] _____. (1997). *Pembangunan Ekonomi Di Dunia Ketiga*. Edisi Keenam. Alih Bahasa: Drs. Haris Munandar MA. Erlangga, Jakarta.
[51] _____. (2000). *Pembangunan Ekonomi Di Dunia Ketiga, Ed. Ktujuh.* Alih Bahasa: H. Munandar dan Trans. Erlangga, Jakarta.
[52] Todaro, M. P., & Smith, S. C. (2004). *Pembangunan Ekonomi Di Dunia Ketiga*. Edisi Kedua. Erlangga, Jakarta.
[53] _____. (2006). *Pembangunan Ekonomi*. Alih Bahasa: Drs. Haris Munandar dan Puji AL, SE. Erlangga, Jakarta.
[54] Utama, S. (2012). *Analisis Jalur*. Fakultas Ekonomi dan Bisnis Universitas Udayana, Bali.
[55] Utami, D. (2007). Analisis Pengaruh Pengeluaran Rutin dan Pengeluaran Pembangunan Pemerintah Terhadap Jumlah Penduduk Miskin di Indonesia Periode Tahun 1975-2004. *Tesis (Published)*. Sekolah Pasca Sarjana. Fakultas Ekonomi dan Manajemen Institut Pertanian Bogor. Retrieved from https://repository.ipb.ac.id/handle/123456789/9010.
[56] Wagner, J. G. (1997). *Biopharmaceutics and Relevant Pharmacokinetics*. Ed. I, pp. 98-157. Drug Intellegen Publication, Hamilton.