



Effect Of Economic Growth, Education Level And Human Development Index To Employment Opportunity In North Sumatera Province

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ABSTRACT

The objective of this research is to determine and analyze the effect of Economic Growth, Education level, Human Development Index on Employment Opportunity of North Sumatera Province in 2017–2019. This research use quantitative method secondary data obtained from Badan Pusat Statistik site. Sampel of this research are 33 cities/regencies. The analysis method is using multiple linear regression analysis with panel data by Eviews 10 software. The results of the research show that simultaneously economic growth, education level, and human development index have a significant effect on employment opportunity. Partially, the economic growth and education level don't have an effect on employment opportunities, while human development index has a negative effect on employment opportunity.

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1. INTRODUCTION

The unemployment problems in North Sumatra makes the government seeks to reduce unemployment by providing jobs profession (Yusuf et al., 2021). Employment conditions in North Sumatra in 2017–2019 shows the number of people working does not show a significant increase large, or tend to stagnate. According to BPS, the sector that absorbs the most in North Sumatra Province is the Agriculture, Forestry and Fishery. This sector is included in the informal sector and absorbs unskilled labor. In 2017 there was an increase in CPO exports to foreign countries so that the agriculture is still very dominant in absorbing labor even though the absorption trend has decreased since 2015. Entering 2018, the industrial sector processing grows so that there is an increase in the formal workforce, and increase in employment in the service sector. In 2019, employment condition in North Sumatra shows the absorption of labor in the sector trade increased and became the most dominant after the agricultural sector (Sijabat, 2018) (Ginting et al., 2021).

However, the highest open unemployment rate is seen in the labor force with diploma and university education (Mincer, 1962) (Nasution, 2021) (Saputra et al., 2020). Based on employment conditions described above, then there are three things in general that have relation to employment opportunities in the province of North Sumatra. Those three things are economic growth, education level and human development index (Iskandar, 2017) (Zhang, 2019) (Ranis et al., 2000) (Stanton, 2007) (Khan et al., 2018).

The purpose of this study is to determine and analyze the effect of Economic Growth, Human Development Index and Education Level partially and simultaneously on Employment opportunities in North Sumatra Province (Dalimunthe & Fadli, 2015) (Panggabean, 2014) (Damanik et al., 2021) (Mukarramah et al., n.d.). The benefits of this research are for the government to be a reference in preparing programs related to employment in North Sumatra. For researchers Furthermore, hopefully this research can be a reference for related topic of economic growth.

2. RESEARCH METHOD

This is a quantitative research has the data wick obtained in the form of numbers analyzed by statistical techniques (Sandelowski, 2000). Quantitative Research is research that uses an objective approach, including: collection and analysis of quantitative data and using test methods statistics (Didin Fatihudin, 2015). The population in this study is all data regarding the variable economic growth, education level, human development index and employment opportunities in 33 districts/cities in North Sumatra. Researcher using a sample of data in 2017 – 2019. The number of samples in In this study, 99 were obtained from a combination of time series data for 2017 – 2019 and cross section data in the form of 33 regencies/cities in North Sumatra. The data in this study were collected using the documentation method from the site Badan Pusat Statistik and literature study. In this study, the analytical method used is panel data regression analysis by using the Eviews 10 software.

3. RESULT AND DISCUSSION

3.1 Model Fit Test

Table 1. Chow Test

Redundant Fixed Effects Tests Equation: MODEL_FEM Test cross-section fixed effects			
Effects Test	Statistic	d.f.	Prob.
Cross-section F	888.344626	(32,63)	0.0000
Cross-section Chi-square	605.303294	32	0.0000

Based on table 2, the probability of cross-section Chi-square is 0.0000 which is smaller than = 0.05, then it is continued with the Hausman test.

Table 2. Hausman Test

Correlated Random Effects - Hausman Test Equation: MODEL_REM Test cross-section random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	14.637476	3	0.0022

Based on table 3, the probability value of the Chi-square Cross-section is obtained by 0.0022 or less than 0.05, then H₁ is accepted so that the model used in this study is the Fixed Effect Model.

3.2 Classic Assumption Test

Table 3. Multicollinearity Test

	Log_X1_Pertumbuhan _Ekonomi	Log_X2_Tingkat _Pendidikan	Log_X3_IPM
Log_X1_Pertumbuhan _Ekonomi	1.000000	0.262670	0.131988
Log_X2_Tingkat _Pendidikan	0.262670	1.000000	0.479402
Log_X3_IPM	0.131988	0.479402	1.000000

Based on table 3, it can be seen that the correlation between the independent variables is smaller of 0.8, so the data in this study was declared free of multicollinearity.

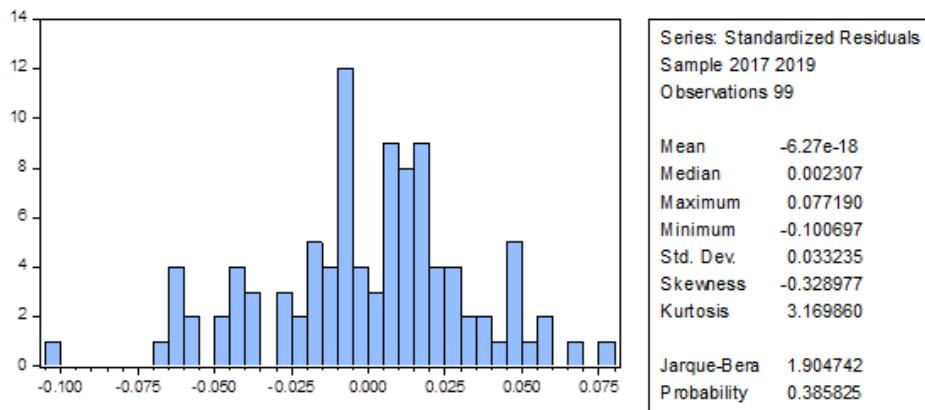


Figure 1. Normality Test

Based on Figure 1, the probability number for JB is 0.385825 which is greater than 0.05 so it can be concluded that the distribution is normal.

Table 4. Heteroscedasticity Test

Dependent Variable: RESABS
 Method: Panel Least Squares
 Date: 05/17/21 Time: 01:05
 Sample: 2017 2019
 Periods included: 3
 Cross-sections included: 33
 Total panel (balanced) observations: 99

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.601632	1.302284	0.461982	0.6457
Log_X1_Pertumbuhan _Ekonomi	-0.075081	0.087364	-0.859399	0.3934
Log_X2_Tingkat _Pendidikan	-0.019506	0.016577	-1.176679	0.2438
Log_X3_IPM	-0.097655	0.313448	-0.311550	0.7564

Based on table 4, the probability values for the variables of economic growth, education level, and HDI are 0.3934; 0.2438; 0.7564. These three values are greater than 0.05, so it can be concluded that there is no heteroscedasticity.

Table 5. Autocorrelation Test

	C1
R1	16.00000
R2	3.76E-12

Based on table 5, it can be seen that the value of R2 (3.76) > 0.05, it can be concluded that the variables in this study did not experience autocorrelation.

3.3 Panel Data Regression Analysis

Table 6. Fixed Effect Estimation

Dependent Variable: Y
Method: Panel Least Squares
Date: 05/17/21 Time: 00:54
Sample: 2017 2019
Periods included: 3
Cross-sections included: 33
Total panel (balanced) observations: 99

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	753373.2	185573.7	4.059698	0.0001
X1_PERTUMBUHAN _EKONOMI	7056.864	10761.16	0.655771	0.5144
X2_TINGKAT _PENDIDIKAN	-962.1980	1392.120	-0.691175	0.4920
X3_IPM	-8331.710	2743.461	-3.036934	0.0035

Effects Specification

Cross-section fixed (dummy variables)			
R-squared	0.998289	Mean dependent var	199754.0
Adjusted R-squared	0.997338	S.D. dependent var	223788.0
S.E. of regression	11545.73	Akaike info criterion	21.82131
Sum squared resid	8.40E+09	Schwarz criterion	22.76499
Log likelihood	-1044.155	Hannan-Quinn criter.	22.20312
F-statistic	1050.135	Durbin-Watson stat	2.545885
Prob(F-statistic)	0.000000		

Based on the model suitability test that has been carried out, this research using the Fixed Effect model with the model estimation results in the following table:

$$Y = 753373.150801 + 7056.86367955X1 - 962.198030874X2 - 8331.71005309X3 + [CX=F, ESTSMPL="2017 2019"] \quad (1)$$

3.4 Hypothesis testing

a. Partial Test Results

Based on table 6, the results obtained that the Economic Growth and Education level partially has no effect on employment opportunities, because the probability value is 0,5144 and 0,4920 is greater than alpha 0,05. Whereas HDI variable has a negative and significant effect on employment opportunities, because probability is 0,0035 less than alpha 0,05.

b. Simultaneous Test Results

The probability value of F statistic of 0.0000 is smaller than alpha 0.05 then it can be concluded that the variables of economic growth, education level and HDI have a simultaneous and significant effect on employment opportunities.

c. Coefficient of Determination Test Results

Based on table 6, the Adjusted R-squared value is 0.997338 which means variables of economic growth, education level and HDI together able to explain the employment opportunity variable of 99.7338% while 0.2662% explained by another unknown variable.

3.5 Discussion

a. The Effect of Economic Growth on Employment Opportunities

The cause of the lack of effect of economic growth on employment opportunities. This is because the economic growth figures seen in 2017 – 2019 are a reflection of the activities of the industrial and service sectors. While the labor force in North Sumatera demographically tends to choose to work in the trade sector and Agriculture. This is influenced by the characteristics of the North Sumatera region which has many plantations, as well as limited skills and qualifications of the workforce.

b. The Influence of Education Level on Employment Opportunities

Causes of the non-influence of education level on employment opportunities is the number who completed diploma/university education not exceeding 15% of the number of people working in each year 2017 – 2019 or in other words. The number of working people is very much dominated by the workforce who only graduated high school education and below. Number of workforce who graduated diploma/university is still too small to be able to make an impact to employment opportunities. Then the limited employment opportunities qualification is university/diploma graduate is also a barrier for graduate from university/diploma to get a job according to the background his education. Effect of Human Development Index on Employment Opportunities.

c. Effect of Human Development Index on Employment Opportunities

Based on the results of the study, HDI actually has a negative effect on employment Opportunity. This is because the HDI is calculated from 3 aspects. first aspect, a long life and healthy life resulted in a lot of work force until entering retirement age, so that every year the number of absorbed in the field of work is limited.

The second aspect is knowledge, a high HDI does not necessarily result in increase in employment opportunities, because the knowledge and skills of the workforce do not all in accordance with the qualifications required by the job field. The high HDI in an area does not necessarily guarantee the absorption of labor, this is due to the incompatibility of the qualifications required by the company where companies tend to look for workers whose wages are not too high. This matter related to the quality of human resources affect the level of wages of these human resources (Purnomo, 2021).

While the third aspect, a decent standard of living represented by indicators adjusted per capita expenditure, reflecting the community's ability to spend money in the form of goods and services. Labor force in people whose lives are already financially prosperous tend not to rush to find a job, or do this related to management unfavorable long-term finances.

d. Effect of Economic Growth, Education Level and Development Index Humans on Employment opportunities

As much as 99.7338 % can be explained by economic growth, the education level and HDI which together have an influence on employment opportunities because on the one hand economic growth opens up employment opportunities through job fields, and on the other hand the existing workforce is equipped with by quality education. Both are also reflected by the Index number Human Development which consists of aspects such as health, education and community income. As much as 0.2622% of the unknown variables explain the employment opportunities variable. One of the government policies to increase employment opportunities is: minimum wage setting. As in efficiency theory, the minimum wage aims to to increase the productivity of the workforce (Tapparan, 2017). In addition to the minimum wage, investment variables can also be added to examine its effect on employment Opportunity. Investment is the mobilization of resources to create or increase production capacity in the future, resulting in employment (Anisaurohmah et al., 2020). Then, the inflation variable according to previous research have an impact on employment opportunities. Rising inflation is indicated by increase in prices and a decrease in the amount of market demand, this has an impact on reduction in the number of workers by the company (Cahyanti & Fevriera, 2020).

4. CONCLUSION

Simultaneously variables, economic growth, education level and HDI have an effect on employment opportunities in the city/regency of North Sumatra in 2017 – 2019. Partially, the variables of economic growth and education level have no effect on employment opportunities in the province of North Sumatra in 2017-2019. Meanwhile, HDI variable has a negative and insignificant effect on employment opportunities North Sumatra Province in 2017 – 2019. The value of Adjusted R Square is 0.997338, meaning the growth variable economy, education level and HDI together are able to explain employment opportunity variable is 99.7338% while 0.2662% is explained by another unknown variable. As a suggestion, the North Sumatra Provincial Government should improve welfare society to be balanced with the addition of jobs. So that society who are prosperous in terms of health, education and income, have opportunities to get a job, especially a formal one. For Badan Pusat Statistik to complete the data on the official websites of each region in Indonesia North Sumatra. Further researchers to examine other variables that have a possible influence employment opportunities such as minimum wages, inflation and investment. Higher education institutions should strive to improve the skills of their students by providing trainings that can improve the entrepreneurship.

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