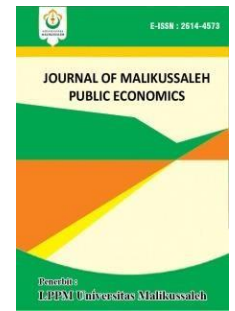# THE EFFECT OF LEVEL OF WORKING PARTICIPATION AND OPEN UNEMPLOYMENT ON ECONOMIC GROWTH IN ACEH 2007-2015

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ARTICLE INFORMATION	ABSTRACT

Keywords:
Labor Force Participation Rate, Open Unemployment, Economic Growth.

This study aims to determine how the influence of the Labor Force Participation Rate and the Open Unemployment Rate on Economic Growth in Aceh. This study uses secondary data obtained from relevant agencies in 2007-2015. The analytical method used in this study is a quantitative method using a multiple linear regression model. The results show that the Labor Force Participation Level (X1) and Open Unemployment Rate (X2) have a significant and positive effect on economic growth in Aceh.

1. INTRODUCTION

Employment is an important aspect in economic development, because employment becomes one of the returns to production factor services. Despite having a lot of human resources, many people in Aceh are still classified as unemployed. Unemployment is always considered as a manifestation of the problem in the economy, this occurs because of the level of community welfare is not maximally achieved. Efforts in mitigating unemployment will be due to with the availability of jobs. But at present, in Aceh the opposite is emerging, the lack of employment makes some Acehnese people do not have jobs, especially permanent jobs. Many of them are still classified as daily or seasonal workers.

The lack of existing employment makes the workforce continues to grow and is dominated by high school graduates. This also resulted in the rate of open unemployment in Aceh continued to increase despite fluctuations.

The Labor Force Participation Rate illustrates the influence of the participation of the population in productive economic activities. The higher the number of the people belonging to the non-labor force group the lower the number of existing labor force, resulting in a smaller workforce participation rate (Simanjuntak, 2001 in Sukidin, 2015).

The involved community in economic activities can be measured by the proportion of the population in the labor market, namely people who work or are looking for work, also called the Labor Force Participation Rate (LFPR). The higher level of LFPR is an indication of the increasing tendency of the productive age population (15-64 years) in seeking and carrying out economic activities (BPS, 2005).

According to Ankara (2010 in Purnomo & Sukamdi, 2010), the high rate of open unemployment in the higher education group is a big loss for the government. Currently, especially in the Aceh region, the open unemployment rate is relatively high, especially in the higher education group such as university graduates, undergraduate and diploma

graduates. Every year more than 1000 people graduate from high school / vocational school, undergraduate and diploma, but they are difficult to find work. This is called a big loss, whereas a high level of education is expected to increase employment opportunities and obtain high income. But the reality that happened was the opposite where those who graduated from Diploma and Undergraduate degrees were particularly difficult to get jobs this occurring result has increased the number of educated open unemployment.

Table 1
Labor Force Participation Rate, Open Unemployment Rate and Economic Growth in Aceh

Year	LFPR (%)	OVR (%)	Economic Growth
2007	62.12	9.84	7.23
2008	60.32	9.56	1.92
2009	62.50	8.71	3.97
2010	63.17	8.37	5.43
2011	63.78	7.43	5.98
2012	61.77	9.10	4.95
2013	62.07	10.30	4.15
2014	63.06	9.02	6.72
2015	63.44	9.93	8.73

(Source: Aceh Provincial Statistics Agency, 2017)

The table 1 above shows where in 2007 the labor force participation rate (LFPR) was 62.12% and the open unemployment rate (OVR) was 9.84%, and economic growth was 7.23%. In 2008 LFPR decreased to 60.32% and OVR also decreased to 9.56% experiencing in low level rate as well as economic growth becomming 1.92%.

In the year 2008 to 2012 LFPR values declined due to the lack of available jobs that do not suitable compared to the increasing number of workforce. In addition to the lack of existing jobs opportunities, many of them are not able to meet the competency standards desired by companies. This causes a decline in economic growth in the year.

The data also shows that in 2008 the data was against the theory. The higher the value of the Work Force Participation Rate (LFPR) and accompanied by the low value of the Open Unemployment Rate will trigger an increase in economic growth. But what happened in 2008 was where the value of LFPR and OVR in that year decreased from the previous year and economic growth in that year also declined.

The purpose of this study is to determine the effect of Labor Force Participation Levels and the Open Unemployment Rate on economic growth in Aceh during 2007-2015.

2. LITERATURE REVIEW
Economic Growth Theory

Economic growth is the increasing ability of providing various economic goods for its population in the long run which are determined by technology advent towards the existence of demands (Todaro, 2004).

Theory of Work Force Participation Rate

According to Mulyadi (2003 in Kurniawan, 2014), the Labor Force Participation Rate describes the number of workforce in a certain age group as a percentage of the population in that age group. The LFPR figure is based on the basis for viewing residents who seek for jobs.

Theory of Open Unemployment Rate (TPT)

Sumarsono (2009 in Yudiaatmaja, et al. 2016), states that the unemploymentrate is the percentage of the number of unemployed people to the total workforce.

3. RESEARCH METHODS

The object of research is basically the Labor Force Participation Rate (LFPR), the Open Unemployment Rate (OVR), and economic growth in Aceh. Indonesia data, get directly from the Central Bureau of Statistics (BPS) of Aceh Province.

Data analysis method

The method of data analysis in this study uses a multiple linear regression model with the following formula:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + e$$

Where:

Y: Economic Growth

β_0: Constants

$\beta_1 \beta_2$: Variable Regression Coefficient

X1: Labor Force Participation Rate

X2: Open Unemployment Rate

e: Intruder Variables

4. RESEARCH RESULT

The result of this paper can be show as follows

Results of Multiple Linear Regression

Dependent Variable: PE Method: Least Squares Date: 11/11/17 Time:17:08 Sample: 19 Included observations: 9

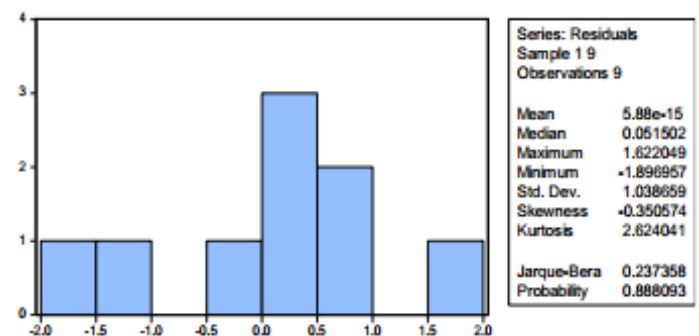| Variable	Coefficient	Std. Error Statistic	t-	Prob.
C	-122.2284	31.56424	-	0.0082
TPAK	1.874447	0.461315		0.0066
TPT	1.158105	0.545694		0.0780
R-squared	0.733727	Mean dependent		5.453333
Adjusted R-	0.644969	S.D. dependent		2.012840
S.E. of	1.199340	Akaike info		3.462621
Sum squared	8.630492	Schwarz criterion		3.528362
Log likelihood	-12.58179	Hannan-Quinn		3.320751
F-statistic	8.266634	Durbin-Watson		2.017415
Prob(F-statistic)	0.018879			

Source: Research Results, (Data processed), 2018

Can be drawn the equation of the results of multiple regression as follows:

$$Y = -122.2284 + 1.874447X1 + 1,158105X2$$

From this formula shows that the constant value has a value of -122.2284 which means that the observed variables of labor force participation rate (X1) and open unemployment rate (X2) do not exist. So the value of economic growth in Aceh is -122.2284%. The coefficient of the labor force participation rate (X1) is equal to 1,874 which means that if there is an addition to the labor force participation rate of 1%, then the economic growth of Aceh Province will increase by 1,874% assuming the OVR variable is considered constant. While the open unemployment rate coefficient (X2) is 1,158 which means that if there is an additional open unemployment rate of 1%, then the economic growth of Aceh Province is increasing by 1.158%. Figure 1 Result of Normality Test.

Normality test

Source: Research Results, (Data processed), 2018

In the figure 1 above, the results of the study show a probability value of 0.888, so this regression model can be seen the resudual normally distributed, because the value of probability is greater the 0,1.

Multicollinearity Test

Table 2 result of multicollinearity test Can be seen from the output result at table 2 below

Included observations: 9

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	996.3015	6233.744	NA
TPAK	0.212812	5197.643	1.315411
TPT	0.297782	156.9655	1.315411

Source : Research Results, (Data Processed), 2018

Based on the table 2 above the Centered VIF value below 10 indicates that there is no multicollinearity between independent variables. The results of data processing state that the VIF value is 1,315.

The result of autocorrelation can be seen at table 3 as follows Result of autocorrelation test

Autocorrelation Test

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	1.865017	Prob. F(2,4)	0.2678
Obs*R-squared	4.342840	Prob. Chi-Square(2)	0.1140

Source: Research Results, (Data processed), 2018

The table above shows where the Prob value of Chi-Square is 0.114, meaning that this research does not indicate autocorrelation. If the number of Prob.Chi-Square exceeds the level of confidence, ,means that there is no autocorrelation. In this study using a probability level of 0.1 (10%). Prob.Chi-Square value is 0.114> 0.1. From the results of this study it can be concluded that this test is free from autocorrelation.

Heteroscedasticity Test result can be shown as follows.

Table 4
Result of Hetorscedasticity

Heteroskedasticity Test: White

F-statistic	19.93037	Prob. F(5,3)	0.0165
Obs*R-squared	8.736975	Prob. Chi-Square(5)	0.1200
Scaled explained SS	3.153157	Prob. Chi-Square(5)	0.6764

Source : Research Results, (Data Processed), 2018

From the table it is explained where the value Prob.Chi-Square in the Obs * R-Squared row is 0.120, and the value is greater than > 0.1, it can be concluded that this test is free from heteroscedasticity. The result of hypothesis test can be shown as follows. Table 5 result of hypothesis test.

Partial Test (t Test)

Variable Name	T-Statistic	T-tabel	Prob	Explain	Hipothesis
TPA	4.063268	1.43	0.	Significant	Accept
TPT	2.122261	1.43	0.	Significant	Accept

Source : Research Results, (Data Processed), 2018

From the results of the tests above, it shows that the LFPR variable has a Tcount of 4.063268 with a statistical probability value of 0.0066 and a TTabel (df) = n-k (9-3 = 6) value at α = 10% obtained a value of 1.94318. Then it can be concluded that $T_{count} > T_{table}$ it means that partially the labor force participation rate positive and significantly affects economic growth in Aceh.

The Open Unemployment Rate has a Tcount of 2.122261 with a probability value of 0.0780, and a TTable value with (df) = n-k (9-3 = 6) at α = 10% obtained a value of 1.94318. Then it can be concluded Tcount is greater the Ttable it means that the level of open unemployment positive and significantly affects the economic growth in Aceh.

The result of F test can be shown as follows

F-Statistic	F-Table	Prob	Explain	Hipothesis
8.266634	3.46	0.018 87	Significant	Accept

Source: Data processed, 2018

Based on the results of the F tests above, it can be seen that Fcount is 8.266634 with a probability of 0.018879 at a trust level of 90%. As compared to F table (dfl) = k-1 (3-1 = 2) and (df) = n-k (9-3 = 6) the value is 3.46 at α = 0.1 (10%). From these results it can be seen that F Count is greater than FTable or 8.266634> 3.46 with a probability value of 0.018879 <0.1. The decision obtained is that that simultaneously the labor force participation rate and the open unemployment rate affect economic growth in Aceh.

Determination Coefficient Test (R_2) and Correlation Coefficient (R)

Determination coefficient (R_2) can be seen from Adjusted R-squared which is equal to: 0.644969 or 64.497%. Then economic growth (Y) in Aceh has been explained by 64,497% of the variable labor force participation rate (X1) and the open unemployment rate variable (X2).

To find out the correlation value or the relationship of the independent variables to the dependent variable by rooting the value of the Adjusted R-squared, namely $\sqrt{R_2} = \sqrt{0.8030996202} = 0.8031$. This value explains that the relationship of the independent variable to the dependent variable is very high because the value of 0.8031 approaches the value of 1.

5.   CONCLUSION AND SUGGESTION

Conclusion

The variables of the Labor Force Participation Rate partially and the Open Unemployment Rate had a positive and significant effect on Economic Growth in Aceh in 2007-2015.

Suggestion

For the Aceh government, it is suggested that more attention is paid to community labor force participation and open unemployment in Aceh, especially open unemployment, the government should make a decision to reduce the level of open unemployment that occurs in Aceh. High economic growth is expected to reduce unemployment, improve economic conditions in Aceh and improve human resources and increase employment.

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