The Role of Government on Human Capital of the Endogenous Growth in the Eastern of Indonesia

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Abstract: *Eastern Indonesia (KTI) is a disadvantage area in Indonesia, the local government allocated an education budget to increase human capital in order economic growth with good performance, but constrained by geographical factors. The study then found that education spending by local governments in KTI has a negative and significant impact to the percentage change educated labor force and the percentage change educated work force has a significant positive effect on employment, but education spending is not significant to the growth. There was no significant difference in economic growth by geography in KTI*
Keywords: *Economic Growth,Education Spending, Educated Work Force, Employment*

I. Introduction

The fundamental question related to economic growth is whether regions that are lagging behind, tend to grow faster than regions more advanced so that the standard of living gap between them can be further narrowed down (convergen). However, evidence suggests that the trend towards convergence between developed regions and poor regions do exist, but are relatively weak [3].

Growth model evolved, namely the emergence of endogenous growth model in which the model is more emphasis on long-term growth, but in the short and medium term growth neglected, so that endogenous growth models rather less suited to developing countries, where the growth inhibition over the issue of the structure [14], [15].

Based on the characteristics and efforts to overcome inequality region, the Indonesian government to divide the territory of Indonesia into two, western Indonesia (KBI) and Eastern Indonesia (KTI) as contained in the Medium Term Development Plan National - Bappenas2010-2014 (Nusa Tenggara, Sulawesi, Maluku, and Papua), which focuses on KTI as the region is known as a region is lagging behind, as shown in Figure 1.
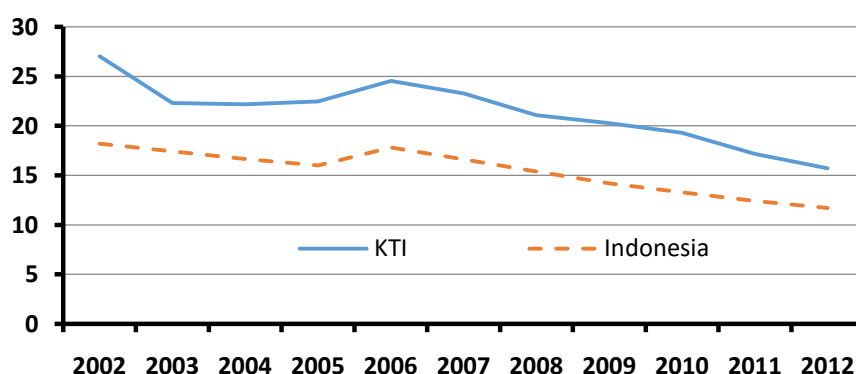

Figure 1. Trends of Poverty in Indonesia and KTI 2005-2012 [13]

An early advantage over the other region is the level of human capital per person will cause permanent differences to income levels in different countries. If the externalities associated strongly with human capital, the wealthier regions will achieve higher output as a result of human capital endowment of its higher, and if able to be maintained will create or generate savings and new investments were adequate [18]**.**

The local government in KTI as an autonomous regional government, has allocated budget for education in an effort to improve the human capital in education, by improving educational facilities and infrastructure, which is expected to increase in the educational level of the workforce in the region. This effort then constrainedby access between regions (inter-provincial, inter-district and town-village) are difficult, where KTI region known as the cluster of islands a lot, so the acceleration of infrastructure development of education is not achieved to the fullest. Therefore, the purpose of this research is:

1. Knowing the direct and indirect relationships education spending through a more educated work force and employment to economic growth in KTI.
2. Know the difference economic growth according togeography in KTI.

II. Theory, Empirical Study And Analysis Model

Solow model is based on a production function that depends on the stock of capital and labor, the model shows how saving, population growth and technological progress affect the output level of the economy and its growth over time, Mankiw (2003) andTodaro (2000) [22], later appeared Growth Theory Endogenous who refused assumptions Solow model (1956) and Swan (1956) regarding the changes in technology as exogenous, pioneered byPaul R Romer (1986, 1990) [20], [21] andRobert Lucas (1988) [10]

Endogenous growth model assumes growth comes from the company or industry. Capital reserve level companies including the science is a public good and not reasonable to assume science has returns a sliding scale[14], [15], and less variation of living standards internationally in the Solow model into criticism byMankiw, Romer and Weil, (1992) [16], so that the Human Capital as part of the economic growth, as the economy requires a workforce that has the skills to adopt technology. Anaduaka (2014) in his research indicates that human capital is positive and significant effect on economic growth [1].

In their study, Nizar, Hamzah, and Syahnur (2013 [19]andWang (2015) [23], found that labor has a positive and significant impact on economic growth. Loizides (2006) [12], Chude (2013) [5] and Morozumi and Veiga (2014) [17], found that public spending has a significant effect on growth, as well as those found by Maharajabdinul, et al (2015) [13] which saw public spending (education and health) of the fiscal decentralization in eastern Indonesia, but Barro (1991) [2], Folster and Henrekson (1999, 2001) [7] in his research indicates that the ties between government spending and economic growth is negative and significant, and Hamid Paddu (2010) [9] found government spending in terms of decentralization has a negative effect on growth. The increase in public spending, especially education sector is not followed by a growing number of people in school and generate low economic growth [4], [6], then there is no noticeable effect on growth [11].

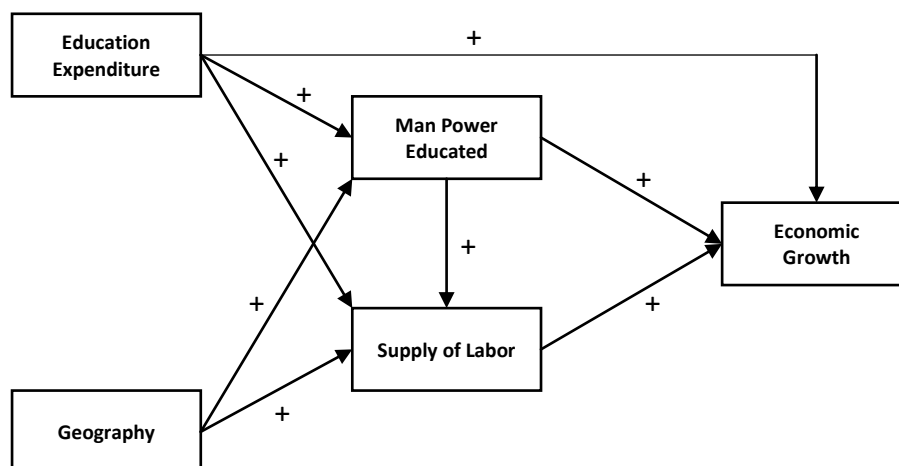Model analysis developed according to simultaneous equation model, as Figure 2.

Figure 2. Frame Work Hypothesis

Model analysis to prove the hypothesis in this research is using the model of simultaneous equation models with panel data on 12 provinces from 2005 - 2013. Where economic growth = f (Education Expenditure, Educated Labor, Supply of Labor). Since X1 = Education Expenditure; X2 = Geographic (0 and 1 = Non Islands and Islands); Y1 = Labor educated; Y2 = Absorption of Labor; Y3 = Economic Growth, then: $Y_3 = f(X_1, Y_1, Y_2)$; Where$Y_1 = f(X_1, X_2)$; $Y_2 = f(X_1, X_2, Y_2)$

$$\ln Y_1 = \ln\alpha_0 + \alpha_1 \ln X_1 + \alpha_2 X_2 + \varepsilon_1 \qquad (1)$$
$$Y_2 = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 Y_1 + \varepsilon_2 \qquad (2)$$
$$Y_3 = \lambda_0 + \lambda_1 X_1 + \lambda_2 Y_1 + \lambda_3 Y_2 + \varepsilon_3 \qquad (3)$$

III. Result

The results of this study indicate that the chi-square value obtained is equal to 0.271 is relatively low when compared with the value of degree of freedom is 1. Besides the probability value generated from this

study is 0.602 ≥ 0.05, thus it can be concluded that, if viewed from the chi -square value and probability, the model proposed in this study had a high degree of compatibility, thus declared fit models with observation data.
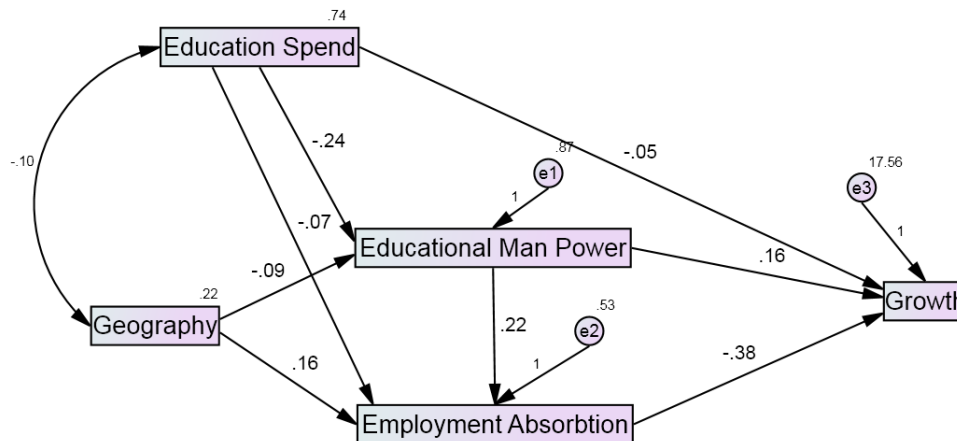

Figure 3. Results of Analysis

Value of GFI (goodness of fit index), between 0.0 (poor fit) to 1.0 (perfect fit), GFI high value indicates a better fit, then the value of GFI = 0.999, then Imam Ghozali (2011) [8] recommends a value of over 90 percent as a measure of a good fit. Based on the results obtained by GFI value of 0.999. This means that the models are built in this study had a high compatibility.

Table 1 Goodness of Fit Index

GOODNESS OF FIT INDEX	CUT OFF VALUE	RESULT
X^2-Chi Square (CMIN/DF)	≤ 0,20	0,272
Significance Probability	≥ 0,05	0,602
RMSEA	≤ 0,08	0,000
GFI	≥ 0,90	0,999
AGFI	≥ 0,90	0,985
TLI	≥ 0,95	1,536
CFI	≥ 0,95	1,000

The Influence between variable model role goverment to human capital in endogenous growth in KTI.

Table 2. The Direct Influence

			Estimate	S.E.	C.R.	P
Y1	<---	X1	-0.24	0.109	-2.2	0.028*
Y1	<---	X2	-0.092	0.198	-0.47	0.642
Y2	<---	X2	0.163	0.154	1.055	0.291
Y2	<---	Y1	0.215	0.075	2.857	0.004**
Y2	<---	X1	-0.066	0.087	-0.76	0.447
Y3	<---	X1	-0.052	0.484	-0.11	0.914
Y3	<---	Y1	0.161	0.448	0.359	0.72
Y3	<---	Y2	-0.382	0.553	-0.69	0.49

The results showed that the only effect of education spending to the educated work force that was significant at the level of 5 percent and the influence of educated labor force in the labor market at the level of 1 percent, the rest is significant.

Effect of education spending to -0.092 educated man power shows that increased education spending by 1 percent would lower educated workers 0.092 percent at KTI, this suggests that the hypothesis is rejected, while educationspending does not have a significant effect on employment and economic growth at KTI.

Geographically, there were no significant differences provinces economic growth which consists of the islands with the provinces instead of islands in eastern Indonesia, either directly or indirectly through an educated man power and employment educated labor force increase by 1 percent would increase the change in employment of 0.215 percent . However, this variable does not have a significant effect on economic growth directly as well as employment to economic growth.

Table 3. Effects of Exogenous Variables Total Against Endogenous

	X2	X1	Y1	Y2
Y1	-0.092	-0.24	0	0
Y2	0.143	-0.117	0.215	0
Y3	-0.069	-0.046	0.079	-0.382

In total effect of education spending has a negative impact and no significant effect on economic growth, and educated work force have a positive influence through employment to economic growth at a low level of significance. There was no significant differences in totally economic growth according to the geographical conditions of labor through education and employment.

IV. Conclusion

The increase in the percentage of education spending will decrease the percentage of educated man power and did not have a significant effect on economic growth directly and indirectly, while the increase in educated man power would significantly increase employment (percentage) and growth at a significance level low. Geographical conditions do not provide a significant difference in the growth of economic, either directly or through the total educated labor force and through employment.

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