How Human Development Effect Poverty Alleviation in Origin and Expansion Regions?

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Abstract

The aim of this paper is to highlight the importance of human development towards poverty alleviation by comparing different region status. This research uses econometric methodology with dummy variable regression analysis tools. The results show there are no significant differences related to poverty conditions in origin and expansion regions. Overall, the conditions of poverty in origin and expansion regions in Eastern Indonesia are almost the same. Interesting findings in this study specifically indicate that an increase in the quality of human resources is able to reduce poverty in origin and expansion regions. It is expected that regional autonomy through government expenses policies that are prioritized on improving the quality of human resources in various aspects will be able to overcome poverty in the origin and expansion regions.

Keywords: Poverty; Human Development; Region Status

Introduction

Poverty is a global problem with a variety of effects experienced in various regions of the world, especially developing countries, although the nature and form of poverty is different (Domfeh and Bawole, 2009; Nyasulu, 2010). Specific goal on the absence of poverty in any forms keep on arising in the Sustainable Development Goals/SDGs. Recent development programs are also paying more attention in poverty alleviation, since they are dedicated to enhancing the social welfare. One of the easiest indicators to be implemented to assess country’s welfare is the poverty level. Poverty is a key welfare indicator, which is used to make comparisons of poverty over time and between spatial and social groups for the purpose of policy analysis (Sen, 1999:89). The increased number of poor residents indicates the lower level of welfare in a country (Samputra and Munanda, 2019). The development of poverty level in Indonesia in the period of 1999-2017 is illustrated by Figure 1. Generally, during the period of 1999-2017, the poverty level in Indonesia tends to demonstrate the decreasing, both in numbers and percentage. The decreasing happened absolutely and relatively, yet, the percentage still recorded in two digits of value.
Ironically, a contradiction happens in Java island and outside of Java island or the western region of Indonesia and eastern district of Indonesia. Samputra and Munanda (2019) stated that the low level of welfare and high level of poverty happen mostly in the provinces outside Java island. In the records made by Central Bureau of Statistics (BPS), it was confirmed that Maluku and Papua were claimed as regions with the highest number of poor residents in Indonesia. It was recorded as 21,20 percent or 1,5 million people out of total population. The lowest level of poverty is recorded in Kalimantan island with the percentage of 6,09 percent or 982 thousand people out of total population. However, in numbers, most of the poor residents still occupy Java island with total 13,34 million out of total population. But on the percentage, Java was documented as the lowest, which was 8,94 percent. After Maluku and Papua island, Bali and Nusa Tenggara were next islands with high numbers of poverty, respectively. It was calculated 2,05 million poor residents in these territories or 14,02 percent. After Bali and Nusa Tenggara, Sulawesi island was queued as the next with the percentage of 10,64 percent or equal with 2,06 million of people. Sumatera island was catching up with the percentage of 10,39 or equal with 5,97 million of peoples.

Poverty is no longer identified as the limitation of economics, but also the failure in fulfilling basic rights and different treatment to an individual or a group of people to live the life in dignity. According to Sen, (1999,87), 'real' poverty can be identified sensitively in terms of deprivation of abilities (intrinsically), unlike low income, which is only instrumentally significant. Sen distinguishes between ability poverty and income poverty; and argues that poverty ability is clearly more important. Poverty ability refers to the deprivation of opportunity, and choice and rights.

The fulfilment of basic rights is one of the efforts in human development to improve welfare to reduce poverty levels in Indonesia. Several studies mention that the human development index has a significant influence on poverty, including those conducted by Amaluddin et al., (2018), Arief and Prastiwi (2017), Singh (2012). The result of their studied showed that the Human Development Index has a significant and negative effect on poverty, which means an increase in the Human Development Index can reduce poverty. According to Kurniawan (2017), the human development index relating to development and poverty alleviation is that low income causes an increase in the number of poor people and the poor causes human quality to decline. Several studies related to the Human Development Index and regional development with indicators of reducing poverty levels have been carried out by Rory (2019), Amaluddin et al.(2018), Zuhdiyati & Kaluge (2017) which state that modifications made in human development have an important role in poverty alleviation, and the Human Development Index indicator shows a negative and significant relationship with poverty reduction. Other research shows that there is no effect of the Human Development Index on a reduction in the level of poverty, this is because not all determinants of the human development index are fulfilled (Purbopingtyas et al., 2020, Syaifullah & Malik, 2017).

The role of government is required in improving citizens’ welfare and alleviation of poverty by fiscal decentralization (Agyemang-Duah et al., 2018; Jütting et al., 2004). Fiscal decentralization could bring wide economics efficiency in resources allocation among public sectors. It could improve economics efficiency as regional government will be closer to residents than central government. Hence, it will be more responsive towards local needs and preferences (Fadli, 2014). The existence

Figure 1: The Development of Number and Percentage of Poverty in Indonesia, 1999-2017
Source: Central Bureau of Statistics, Indonesia 2017 (processed)
Note: column as number of poverty; line as precentage of poverty
of decentralization policy provides optimistic in reducing numbers of poverty with the authority of regional government to manage the financial, specifically in poverty alleviation program.

Apparently, the decentralization program delivers contradiction in development. The existence of decentralization is purposed not to mitigate the poverty, instead to push the economic growth and development (Martinez-vazquez & McNab, 2003). The implementation of fiscal decentralization in its efforts to mitigate the poverty tends to cover up the budget deficit and withdraws central budget to overcome the deficit. It leads to the situation, where the regional government will be more corrupt than central government. It causes bad decisions on expenses and leads to the abuse of public resources. Eventually, the efforts on poverty mitigation will be useless due to the low-quality programs that are not responding to the residents’ necessities (Agyemang-Duah et al., 2018; Crook, 2003).

The role of economic growth is used in illustrating the success of development, as well as to become the requirements for poverty mitigation. High economic growth is expected to be experienced by entire community, including the poor residents. In the hypotheses stated by Kuznets, economic growth and poverty have strong association. On the early stage of development process, the poverty level tends to be high since the economic growth, as the effect of income’s distribution, has not been distributed evenly to all level of communities. Yet, in the long term, as the development becomes well-distributed, it will mitigate the poverty gradually (Arsyad, 2010; Prapdopo, 2018).

The relationship paradox between economic growth and poverty might possible to happen. It is caused by the policies that are pro rich instead of pro poor, unproductive expenses on the basic sectors, even capital-intensive investment.

More research are conducted to obtain proper formula in overcoming above issues. Several research were proposed regarding poverty with different approaches and methods, started from data panel method (Prapdopo, 2018; Samputra & Munanda, 201; Widaningrum, Riyanto, & Mulyanto, 2019), double regression (Adeyemi, Ijaiya, & Raheem, 2009; Astrini & Purbadharmaja, 2013), path analysis (Prapdopo, 2018), probit and tobit (Akerele, Momoh, Samuel A Adewuyi, Biola B. Phillip, & Olumuyiwa F. Ashaolu, 2012; Islam, Sayeed, & Hossain, 2017), dynamics model with spatial autoregressive (Caraka, 2017), Growth Incidence Curve and Pro-Poor Growth Index methods (Permadi, 2018). Besides, research are also conducted by using different indicators and level of dimension between countries (Adeyemi et al., 2009), in a country (Islam et al., 2017; Kedir & Mckay, 2005; Permadi, 2018), between provinces (Dartanto & Nurkholis, 2013; Pratama, 2014; Samputra & Munanda, 2019), at province level (Astrini & Purbadharmaja, 2013; Caraka, 2017; Sisca HS, Hamzah, & Syechalad, 2013; Usman & Diramita, 2018), among regencies in a province (Prapdopo, 2018; Sofilda et al., 2013; Widaningrum et al., 2019).

By considering above issues and previous research that haven’t specifically notified the poverty with basic concept and several discussions about poverty in the Eastern Indonesia, there are still possibilities to discuss poverty from various certain perspectives.

These gaps motivate the researchers to empirically examine the relationship between human development and poverty and comparison based on region between origin and expansion using regression with dummy variable as an analysis tool. On the other words, this research intends to discuss specifically about the identification of different condition between the region of origin and its expansion at the Eastern Indonesia, as well as the poverty determinants based on the development indicators that cover economic growth, decentralization policies, and the role of human resource development, specifically. Therefore, the aim of this paper is to highlights the importance of human development towards poverty alleviation by comparing different region status.

**Research Method**

Quantitative research with econometric is applied in this research. Secondary data with cross section type are employed in this research. The scope of the research is 232 regencies and cities in the Eastern of Indonesia in 2017. The observation can be seen at table 1.

**Table 1**

<table>
<thead>
<tr>
<th>Regencies and Cities in the Eastern of Indonesia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Province</td>
</tr>
<tr>
<td>----------</td>
</tr>
<tr>
<td>West Nusa Tenggara</td>
</tr>
<tr>
<td>East Nusa Tenggara</td>
</tr>
<tr>
<td>West Kalimantan</td>
</tr>
<tr>
<td>Central Kalimantan</td>
</tr>
</tbody>
</table>

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Data source is originated from annual report of Central Bureau of Statistics (BPS). Data collection includes poverty actualization, Human capital index, PAD and Economic Growth. The explanation of the data collected and the indicator can be seen in table 2.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
<th>Unit</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>POVR</td>
<td>Level of Poverty</td>
<td>Percentage</td>
<td>Data and Information on Poverty in Regencies/Cities 2017 (BPS Publication)</td>
</tr>
<tr>
<td>IPM</td>
<td>Index of Human Development</td>
<td>Index Number</td>
<td>Index of Human Development 2017 (BPS Publication)</td>
</tr>
<tr>
<td>FDPAD</td>
<td>Ratio of PAD towards regional’s total expenses</td>
<td>Percentage</td>
<td>Financial Statistics of Regencies/Cities in 2017-2018 Book 2 (BPS Publication)</td>
</tr>
<tr>
<td>EG</td>
<td>Economic growth</td>
<td>Percentage</td>
<td>Regional Domestic Product in Brutto of Regencies/Cities in Indonesia 2013-2017 (BPS Publication)</td>
</tr>
<tr>
<td>DUMMY</td>
<td>0 = origin territory, 1 = expansion territory</td>
<td>-</td>
<td>Document of Establishment on New Territory in Indonesia</td>
</tr>
</tbody>
</table>

The regression used in this research is multiple linear regression. Following is the equation for multiple linear regression:

$$\text{POV} = \beta_0 + \beta_1 \text{IPM}_t + \beta_2 \text{FDPAD}_t + \beta_3 \text{EG}_t + \epsilon_t$$

Note: $i$ indicates regency and city in the Eastern regions of Indonesia, $\beta$ is parameter (constant and coefficient), POVR illustrates the level of poverty in percentage, IPM is index of human development, FDPAD represents fiscal decentralization measured from original revenue ratio of a territory over total expenses in percentage, EG is economic growth in percentage, and $\epsilon$ is error term. Multiple linear regression is only able to observe general and long-term condition. Hence, dummy variables were included to answer the objective of the research, to identify the different condition between the region of origin and expansion, as well as to analyze specifically the influence of each variable on region of origin and expansion. In other words, it empirically examines the relationship between human development and poverty, and comparison based on region between origin and expansion using regression with dummy variable as analysis tool. Moreover, dummy variable technique is characterized as flexible. Its usage should be implemented carefully to avoid the dummy trap. To overcome that, dummy variable is counted based on $k-1 = 2-1 = 1$ (only one dummy variable) (Gujarat & Porter, 2009:278). The implementation of dummy variable on the regression equation, later be called as dummy variable in regression equation, is as follows:

$$\text{POV} = \beta_0 + \beta_1 \text{IPM}_t + \beta_2 \text{FDPAD}_t + \beta_3 \text{EG}_t + \beta_4 \text{d1}_i + \beta_5 \text{d1IPM}_t + \beta_6 \text{d1FDPAD}_t + \beta_7 \text{d1EG}_t + \epsilon_t$$

Note, $d_1$ represents variable dummy that valued as 1 for expansion region after regional autonomy based on UU No.23/1999, and valued as 0 for other (region of origin). Regional expansion is one of the government’s efforts for achieving inequitable development. The passing of Law Number 22 of 1999 concerning regional government is the driving force for the region to make efforts to alleviate problems in services, area size, ethnic and cultural differences, as well as providing new services such as water and health so as to minimize disparities between regions (Ali, Siti Mawar, & Nurdin Syah, 2018). The addition of new areas or government centres makes it easier for services that were previously unreachable to be evenly reached by the local community and ultimately people’s
welfare will increase (Simangunsong, 2016). Regional expansion is carried out due to similarities in groups or historical ethics that allow social ties, fiscal incentives (guaranteed transfer funds), bureaucracy and politics, and overcoming the range of government control (Zainudin, 2016). In general, the purpose of the formation or expansion of regions is to improve the quality of life of the community, either socio-culturally, politically, and economically. Therefore, although the formation of a new autonomous region will increase the cost of administering the government, government regulation no. 129 of 2000 Article 2 has the objective of establishing, expanding, eliminating, and merging regions to improve the welfare of the community. For more understanding, the mapping of expansion regions is determined by the law of autonomy regions establishment that published by Directorate General of Regional Autonomy of the Ministry of Home Affairs, Republic of Indonesia.

Results and Discussion

One of the objectives of Sustainable Development Goals/SDGs is the absence of Poverty. Integrated planning, strategies and development policies to overcome poverty problem are persisted to be executed from the national to regional level. To provide alternative regarding to poverty issue in Indonesia, particularly in the Eastern Indonesia, the research was conducted to identify the poverty determinants in the region of origin and expansion by using measured parameters with dummy variable regression. The result of goodness of fit at table 3 resumes a conclusion that the model used is fitted. Basic assumption of classic linear regression will be unfulfilled if a linear regression is assumed as spurious. Based on Table 3 on diagnosis test, it can be concluded that the research is spared from spurious regression with normal residual distribution and appropriate homoscedasticity and model specification. Dummy regression results indicate that the origin region and its expansion have the same poverty problem. The existence of expansion is a proliferation of regional autonomy policies in an area that has not been able to reduce poverty, especially in eastern Indonesia. Whereas, eastern Indonesia has more proliferation of regions compared to western Indonesia. The area that was divided was carrying and having the same burden of responsibility in alleviating poverty from its parent region. Thus, that regional differences or geographic position do not determine the poverty of an area or country (Acemoglu & Robinson, 2012).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>71.0685</td>
<td>7.8168</td>
<td>0.0000***</td>
</tr>
<tr>
<td>IPM</td>
<td>-0.7930</td>
<td>-6.0939</td>
<td>0.0000***</td>
</tr>
<tr>
<td>FDPAD</td>
<td>0.0155</td>
<td>0.2371</td>
<td>0.8128</td>
</tr>
<tr>
<td>EG</td>
<td>-0.7746</td>
<td>-1.9858</td>
<td>0.0483**</td>
</tr>
<tr>
<td>D1</td>
<td>16.8834</td>
<td>1.6041</td>
<td>0.1101</td>
</tr>
<tr>
<td>D1*IPM</td>
<td>-0.2991</td>
<td>-1.9131</td>
<td>0.0570*</td>
</tr>
<tr>
<td>D1*FDPAD</td>
<td>0.1787</td>
<td>0.9562</td>
<td>0.3400</td>
</tr>
<tr>
<td>D1*EG</td>
<td>0.4195</td>
<td>0.9507</td>
<td>0.3428</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.5605</td>
<td>F-statistic</td>
<td>40.8140</td>
</tr>
<tr>
<td>Adj.R-squared</td>
<td>0.5468</td>
<td>Prob(F-statistic)</td>
<td>0.0000***</td>
</tr>
</tbody>
</table>

Diagnostic Test

Normality Test
Jarque Bera (JB)-statistic4,0369 Prob.JB 0.1329
Heteroskedasticity Test (Harvey)
Chi.square-Statistic 13.0079 Prob.Chi_square 0.0719
Specification Test (Ramsey Reset)
F-Statistic 1.7843 Prob.F-Statistic 0.1830

Note: *p<0.10; **p<0.05; ***p<0.01

Based on Table 3, the result of regression could be formed as estimator as follows:

\[
POV = 71.0685 - 0.7930 IPMt + 0.0155 FDPADt - 0.7746 EGt + 16.8834 d1i - 0.2991 d1IPMt + 0.1787 d1FDPADt + 0.4195 d1EGt
\]

(2)

Partially, based on Table 3, it is shown that index of human development has negative influence towards poverty. It is indicated that human development through the improvement of human resource quality has positive role in alleviating the poverty in the region of origin and expansion in the Eastern Indonesia. One of the criteria for the success of economic development is having a high
human development index. Ideally, the higher the human development index in a country will have an impact on the progress of the country’s economic development. The development of the quality of human life, ranking or level of development of an area can be measured by the human development index. Human development in the process simultaneously consists of two things, namely the development of human capabilities and how people use them to function in society and make choices between the choices they have in all aspects of their lives. The human development index has three basic dimensions: longevity and healthy life, knowledge, and standard of living.

The phenomenon of human development shows there is relationship between economic, social, cultural, educational, health and spatial. The concept of development put forward by United Nation Development Program (UNDP) is not limited to national income only, but to people and their ability to reach their full potential in productivity, creativity and health. Human development is aimed at reducing poverty, fulfilling the Human Development Index from health, education and ideal income that can reduce poverty levels.

This research is in line with research conducted by Nurjati (2021:72-75) which analyzes the factors that influence poverty at the provincial level throughout Indonesia. An important finding is that education and health play an important role in reducing poverty.

The high level of human development that could be measured with human development index will enhance the economics productivity and competition, nationally or regionally. The human development to improve human resources quality could be managed by advancements in health, education and per capita income. The capability of improvement in absorbing modern technology as well as developing its capacity will be attained by education, in terms of embodying the growth and development. The challenge that should be dealt by region of origin and expansion in the Eastern Indonesia is providing the access and qualified education service to increase the number of residents who are capable to accomplish their basic education and continue it to the higher level of education, to decrease the level of illiteracy as well as to reduce the educational gap, thus the average length of school has an effect on the poverty level of a region (Nurjati, 2021). The efforts in reducing educational gap both among residents and regions are considered as acts to improve educational quality and relevance. Hence, education could play its role to boost up the region and national development entirely, to improve people’s welfare. Besides, several ways to reduce health gap could be managed by accommodating cheap health service, the improvement of health facility, and appropriate numbers of health workers as well as their distribution.

Education and health play an important role to increase the income, and vice versa. The result of this research is supported by Samputra and Munanda (2019), Amaluddin et al., (2018), Arief & Prastiw, (2017) who stated that human development index has significant negative influence towards poverty. It means that governments must improve their policies and planning strategies to increase Indonesian life expectancy, educational attainment, and income to poverty alleviation (Al-Nasser & Hallaq, 2019). Table 3 also shows that fiscal decentralization has no significant influence towards poverty as shown by study conducted by Widaniangrum, Riyanto and Mulyanto (2019). Fiscal decentralization that has been reviewed from region’s original revenue towards total expenses cannot be able to represent the success of development in improving people’s welfare by poverty alleviation in region of origin and expansion in the Eastern Indonesia.

Revenue contribution and absorption on region’s original revenue towards pro poor programs are not optimal. If the source of revenue is compared with other regions besides the Eastern area, it is found that the original revenue is low. In region of origin and expansion in the Eastern Indonesia, the allocation fund still dominates the source of revenue and becomes one of the components that enrich the regional’s fiscal capacity in holding the local government. Concerning with the local autonomy policy, in terms of the effectivity of regional’s expenses, original revenue cannot be made as main benchmarking towards the success of regional autonomy in region of original and expansion in the Eastern Indonesia, particularly in measuring how far the decentralization policy run by local government could boost up the national or regional objectives in enhancing people’s welfare as well as public services.

The role of government is required in improving citizens’ welfare and alleviation of poverty by fiscal decentralization. It is potential to reduce the poverty if it is remarked by wider financial autonomy of local unit with appropriate fund allocation, priority, accountability and responsiveness (Agyemang-Duah et al., 2018; Jütting et al., 2004). Fiscal decentralization could bring wide economics efficiency because regional government will be closer to residents than central government. Hence, it will be more responsive towards local needs and preferences (Fadli, 2014). According to Suartini (2021: 272), in overcoming budget constraints in financing poverty control, it is necessary to have synchronized, synergized and integrated policies from various fields or sectors, including those that include licensing and investment.
Later, the results that can be described in Table 2 are related with the influence of different economic growth towards poverty in the region of origin and region of expansion. In the region of origin, economic growth has significant negative influence towards poverty. It means that the improvement of economic growth could decrease the poverty in the regions of origin. Economics policy could be initiated to spur the economic growth or re-distribute the revenue or both, to bring down the poverty.

The economic policy and external factor will impact on economic growth and income distribution. High economic growth will increase economic capacity and per capita income. Increased per capita income will lessen the numbers of the poor. In other word, economic growth is a manifestation of improved actions in economic sectors, in which the government is supported enough in distributing the benefits of economic growth evenly that could be used by communities to enhance their welfare. The result of this research is supported by a study conducted by Giovanni (2018) and Permadi (2018), even if the scope area of the research is quite different. Nevertheless, different result applies in the expansion region, in which the economic growth has no significant influence towards poverty. This research is in line with a study performed by Hadliroh (2014) which argued that economic growth could play its role in poverty alleviation; it is due to economic growth that still cannot improve people’s welfare in the expansion area. Benefits from economic sector have not been distributed and utilized evenly by society. Besides, this research only employs cross section as the data type, which only involves one period of observation. Hence, it cannot precisely describe the role of economic growth towards poverty alleviation in the expansion region.

Conclusions

Based on above description, it can be concluded that human development index has significant negative influence towards poverty in the region of origin and expansion in the Eastern Indonesia. Other conclusion resumes that fiscal decentralization has no significant influence towards poverty. Besides, significant role of economic growth only happened in the region of origin in alleviating the poverty, unlike the one in the expansion area that comes up with different result which stated that economic growth has no significant influence towards poverty.

Interesting findings in this research reveals that the role of human development is to decrease the poverty by enhancing the quality of human resources through refining access to educational and health facility services in enhancing community’s productivity on its purpose to raise the income for welfare. The region of origin and expansion in the Eastern Indonesia need policy that provide the access and qualified education service to increase the number of residents who are capable to accomplish their basic education and continue it to the higher level of education, to decrease the level of illiteracy as well as to reduce the educational gap. Several ways to reduce health gap towards poverty alleviation could be managed by accommodating cheap health service, the improvement of health facility, appropriate numbers of health workers as well as their distribution. The logical consequences state that education and health play important role to increase the income. It takes the supports from government, both regional and central, particularly for region of origin and expansion in the Eastern Indonesia. The shortage in this research is on the observation period that was too short, since the data type used was cross section. It will be more interesting and challenging if other models are included in the future research, such as dynamic panel and spatial effect or included more variables.

References


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