

Mapping of Human Development Index in Regencies/City Over South Sumatera

Siti Rohima
Department of Economics
Development
Sriwijaya University
sitirohima@unsri.ac.id

Liliana
Department of Economics
Development
Sriwijaya University
liliana@unsri.ac.id

M. Komri Yusuf Department of Economics Development Sriwijaya University komriyusuf@unsri.ac.id

Muhammad Riswan
Department of Economics
Development
Sriwijaya University
m.riswan@student.unsri.ac.id

Abstract— The purpose of this study is to Mapping the Human Development Index (HDI) in Regencies/Cities in South Sumatra. The data used are secondary data from 15 regencies/cities during the period 2010-2017. The research method is descriptive quantitative with Klassen Typology analysis. Klassen's typology calculation results stated that quadrant I was Palembang. Quadrant II covers Musi Banyuasin, Muara Enim and Banyuasin Regency. Quadrant III covers Ogan Komering Ulu Regency, Prabumulih City and Lubuk Linggau City. Quadrant IV covers Lahat, Musi Rawas, Ogan Ilir, East OKU, South OKU, Empat lawang Regency and Pagaralam City.

Keywords: Human Development Index, poverty, economic growth, Klassen Typology

I. INTRODUCTION

Regional autonomy gives the authority to regional for exploring the potential and sources of regional revenue as funds to manage their respective regions. As confirmed by Suparmoko [10], regional autonomy is defined as the authority of autonomous regions to regulate and manage the interests of local communities according to their own initiatives based on community aspirations. The regional autonomy policy, in which each region has the right, authority and obligation to regulate and manage its own government affairs and the interests of the local community in accordance with applicable laws and regulations in order to improve the effectiveness and efficiency of government administration and improve services to the community.

According to Law No.23 of 2014 concerning regional government, to support the implementation of regional government, the central government will provide a balanced budget allocation to the regional government. Where the fund consists of the General Allocation Fund (DAU) whose allocation is devolved to the local government, the Special Allocation Fund (DAK) which allocates according to the central government programs in the region or based on regional demand regarding national needs. And funds for tax and non-tax revenue sharing. In addition to obtaining budget allocations from the central government, local governments are also expected to be able to improve their own financial capabilities through increased independence, so that the economy in the regions can truly develop. The Regional Revenue itself aside from the central government transfer allocation also comes from the Regional Own Revenue (PAD), Regional Loans (PD) and other legal income. After all regional income has been collected both from the central

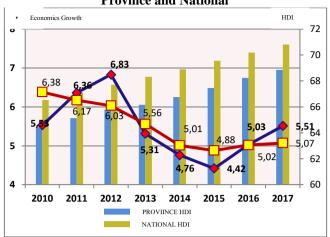
government and from the regions, the policy for the use of all funds is left to the regional governments (13). Local governments are considered to be more effective in carrying out development in the regions, because they already know and know what the potentials and needs of the region concerned. This can be implemented in the development process.

The development process can be interpreted as a series of social, economic and institutional activities in order to improve the quality of human life. Todaro and Smith (11) explained that in the development process there are three main objectives that must be achieved, namely the fulfillment of basic needs; an increase in the quality of living standards such as income, employment, and quality of education; and the ability of the economy to make choices in the community. According to Todaro (12) Development is defined as a multidimensional process that involves a variety of fundamental changes in social structure, social behavior, and social institutions, in addition to accelerating economic growth, equitable distribution of income inequality, and eradicating poverty. So the purpose of development itself is to improve the welfare of the community. The indicator used to see the success of development is economic growth.

South Sumatra Province is known as a province that has a lot of natural resources from the mining, plantation and agriculture sectors. The added value of each sector will form the Gross Regional Domestic Product (GRDP) figure. PDRB per capita in South Sumatra Province in 2017 reached a value of Rp.46.42 million and ranked 15th nationally. Changes in the value of a region's GRDP compared to the previous year illustrate the economic growth that occurred in that region. Figure 1.1 shows the development of economic growth and achievement of HDI values in South Sumatra Province and nationally from 2010 to 2017.



Figure 1. Economic Growth and HDI of South Sumatra Province and National



Source: Indonesia Statistic Agency (BPS)

Economic growth in South Sumatra Province has shown steady improvement over the past eight years as shown in the figure. The economic growth of South Sumatra Province during the period 2010-2017 showed a fluctuating value and in 2017 it reached a value of 5.51 percent. This figure is greater than the achievements of Indonesia's economic growth in 2017 which only reached 5.05 percent.

In an effort to spur regional development, it requires a sizable allocation of funds from the regional government which is reflected in the expenditure post consisting of routine expenditure and development expenditure. Regional government expenditure reported by the regional government in the local budget is a routine activity of regional cash expenditure to finance activities in government. The higher the government expenditure, the greater funds are needed so that spending for local government needs can be met. Increasing government spending, it is hoped that service to the community will be better. Regional expenditure is used to fund all government affairs that are the authority of provinces and regency/cities that have been submitted to the respective regional heads. Optimization Regional expenditure is able to have a good impact on the economy. Regional spending is grouped into two types, namely indirect spending and direct expenditure. Indirect expenditure includes employee expenditure, interest expenditure, subsidy expenditure, grant expenditure, social assistance expenditure, expenditure for gift to the province/regency and village government, expenditure for financial assistance to province/regency and village government, while direct expenditure includes employee expenditure, goods and services, capital expenditure.

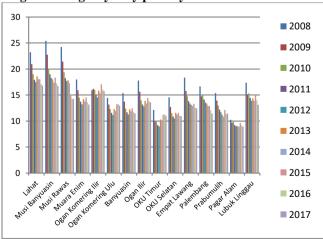
South Sumatra Province has 13 Regencies and 4 Cities in carrying out regional autonomy and decentralization is demanded to be able to manage its own financial. Regional financial management in regencies/cities in South Sumatra can be seen from the financials of each region. Based on data obtained from the Central Statistics Agency of South Sumatera and from the web www.djpk.kemenkeu.go.id, the total GRDP of regency/city in South Sumatra has always been increasing. Total Gross Regional Domestic Revenue (GRDP) in 2013 was Rp224,600.46 (in billion) and this is the lowest GRDP, in 2017 of Rp265,382.71 (in billion), and is the highest GDP. Regional Original Revenues also increased from 2013-2017, in 2013 the total Regional

Original Revenues of the Regency/City of South Sumatra amounted to Rp1,349,540,048,418 and constitute the lowest Regional Original Revenue, in 2017 the total Regional Original Revenue was Rp3,008,610,799,644 and is the highest. The number of poor people has decreased from 2013-2017, in 2013 the total number of poor people was 1,104.58 (in thousand) this was the highest number, and in 2017 it was 1,023.72 (in thousand) and was the lowest number. The total regency/city Regional Spending in South Sumatra also experienced ups and downs (fluctuations) which in 2013 amounted to Rp20,455,717,277,449, and in 2017 Rp25,189,433,616,516. Budget breakdown of BPKP Representatives of South Sumatra Province 2017 Fiscal Year is as follows: Types of Initial Budget Spending (Rp) Revised Budget (Rp) Employee Spending 21,994,158,000, Goods Spending 5,918,531,000 and Capital Expenditures 0.

The size of the regional expenditure is caused by several factors which influence which if these factors are managed well it will increase regional expenditure and if regional expenditure increases the need for regional interests will also increase and make the economy better and reduce poverty (8). The number of poor people in the province of South Sumatra in 2006-2015 numbered more than one million people. In 2006-2013 the poverty level showed a decrease. In 2014 and 2015 which experienced an increase in the number of poor population of 1,085.8 million in 2014 and 1,145.6 million in 2015 with a percentage of 13.62 percent in 2014 and 14.25 percent in 2015 compared to the previous year of 1,043.6 million people with a percentage of 13.48 percent in 2013 (BPS, 2015). At present the percentage of poor people in South Sumatra Province is still quite high, reaching 14.80, this figure is far below the national target in 2015 of 7.5 percent.

Poor population is a problem that exists in the province of South Sumatra. The largest number of poor people in South Sumatra province in the past seven years, namely in 2015, amounted to 1.085 million people or 13.62% of the total population in that year. To see the development of the number of poor people in South Sumatra can be seen in the following figure 2.

Figure 2. Regency/City poverty rate in South Sumatra



Source: Indonesia Statistic Agency (BPS), data processed 2019

Based on the data obtained and illustrated by the graph above, it is known that the poverty rate in the South Sumatra Province/regencies during the last 10 years has fluctuated. The highest poverty rate occurred in 2008 then in 2009 the



poverty rate in South Sumatra decreased until 2012 onwards, then in 2013 the level of poverty again increased until 2015.

From 2011 to 2017 poverty rates in all regencies/cities in South Sumatra always experience fluctuations, but the poverty rate is still in the range of 13 percent. the highest poverty occurred in Musi Banyuasin district in 2008, and the lowest poverty rate occurred in the city of Pagar Alam.

Based on the allocation of employee expenditure, goods expenditure and capital expenditure can plan prioritized economic development, where the expenditure allocation is intended to be able to increase regional independence and stimulate the potential of the region whose purpose is of course to prosper the existing community. In addition to increasing economic growth in the region which marks the total revenue in the region continues to grow, but also one of the main objectives of the government is to reduce poverty and improve welfare. Efforts are being made to increase the human development index (HDI). Therefore, it is necessary to map Human Development Index (HDI) in regencies/cities in South Sumatra Province.

II. LITERATURE REVIEW

Poverty Concept

The concept of poverty varies greatly, from the inability to meet basic consumption needs and improve conditions, lack of business opportunities, to a broader understanding that includes social and moral aspects. But in general what is meant by poverty is material poverty, that is if someone is unable to meet the minimum standard of basic needs to be able to live properly.

BAPPENAS defines poverty as a condition where a person or group of people, men and women, are unable to fulfill their basic rights to maintain and develop a dignified life. The rights in question include meeting the needs for food, health, education, employment, housing, clean water, land, natural resources and the environment, a sense of security from the treatment or threat of violence and the right to participate in social and political life, both for women and men.

In realizing the basic rights of the poor, BAPPENAS uses several main approaches, including: the basic needs approach; income approach (income approach); basic capability approach (human capability approach); and objective and subjective approaches. The basic needs approach, sees poverty as a lack of capabilities of a person, family and community in meeting minimum needs, including food, clothing, shelter, health services, education, water supply and sanitation. According to the income approach, poverty is caused by low mastery of assets and productive tools such as land and agricultural land or plantations, so that it directly affects one's income in the community. This approach determines rigidly a person's income standard in society to distinguish their social class. The basic ability approach assesses poverty as a limitation of basic abilities such as the ability to read and write to carry out minimal functions in society. This limited ability causes the possibility of the poor to be involved in decision making. The objective approach or often also referred to as the welfare approach emphasizes on normative assessments and conditions that must be met in order to get out of poverty. The subjective approach assesses poverty based on the opinions or views of the poor themselves.

Indicators of poverty according to BAPPENAS are limited adequacy and quality of food, limited access and low quality of health services, limited access and low quality of education services, limited employment and business opportunities, limited access to housing and sanitation services, limited access to clean water, lack of certainty of ownership and land tenure, deteriorating environmental conditions and natural resources, weak security guarantees, weak participation, and the amount of population burden caused by the amount of family dependents.

The United Nations Development Program (UNDP) in 2010 issued a poverty index called the Multidimensional Poverty Index (IKM), where the IKM not only measures poverty levels of income, but takes into account 11 indicators. IKM calculates poverty by using three dimensions, namely education, health, and quality of life. Of these three dimensions there are 11 indicators namely nutrition, access to education, living conditions, length of school, sanitation facilities, clean water, access to roads, drainage, waste management, fire prevention, and lighting sources.

Human Development Index (HDI)

The Human Development Index Theory (HDI) The attempt to analyze the comparison of the status of socioeconomic development comprehensively in developing and developed countries has been carried out by the United Nations Development Program (UNDP) in the Human Development Report (HDR). HDI tries to rank all countries from a scale of 0 (the lowest level of human development) to 1 (the highest level of human development) based on three objectives or final products.

The final products of development are: 1. Longevity as measured by life expectancy; 2. Knowledge (knowledge) measured by weighted adult literacy (two-thirds) and average years of schooling (one-third); 3. Third is the standard of living (standard of living) as measured by real income per capita adjusted to the purchasing power parity. One of the biggest advantages of HDI is that a country can do much better at a low income level and that a large increase in income can play a relatively small role in human development. HDI reminded that the intended development is development in a broad sense, not only in the form of higher income. The index compiled by UNDP can increase understanding of the components of development, the various countries that succeed in development (reflected by the increase in HDI over time) and the comparison of groups and regions within a country. Combining social and economic data, HDI makes many countries adopt broader measures of development performance, and to focus their economic and social policies more directly into areas that need improvement (12).

III. METHODOLOGY

Research Locations

Researchers conducted empirical studies with research objects in the district / city in South Sumatra Province in 2007-2017. The unit of analysis in this study is 15 districts / cities in South Sumatra Province which include 11 districts



namely Ogan Komering Ulu; Ogan Komering Ilir; Muara Enim; Lahat; Musi Rawas; Musi Banyuasin; Banyuasin; Ogan Komering Ulu Selatan; Ogan Komering Ulu Timur; Ogan Ilir; Four Lawang and 4 (four) Cities, namely Palembang; Prabumulih; Natural Fence; Lubuk Linggau, the inclusion of Penukal Abab Lematang Ilir Regency and North Musi Rawas Regency are because the two capubaten areas are relatively new regions so the secondary data needed is still relatively unavailable.

Data Types and Sources

The data used in this study include secondary data and primary data. Primary data were obtained from interviews and distributing questionnaires to the public and related institutions in the form of competent offices in their fields. Secondary data collected is related to the description of regency / city areas in South Sumatra and community characteristics obtained from the publication of the Central Statistics Agency and literature studies.

Analysis Techniques

Progress and economic growth in each region are certainly different. There are regions that are able to spur economic activities so they can grow rapidly. On the other hand there are also areas that cannot do much so that the economic cycle stagnates at one point or even grows negatively and increases poverty and affects the Human Development Index (HDI) and welfare. The analysis used is Klassen's Typology.

Table 1. Typology of Klassen

Table 1. Typology of Klassen		
Quadrant II		
Yi > Y and $Ri < R$		
Advanced but Depressed Areas		
Quadrant IV		
$Yi \le Y$ and $Ri \le R$		
Relatively Disadvantaged Areas		

Source: Safrizal, 2008

Information:

r1 : Number of Regency/City Poor People
 r : Average Regency/City Poor Population

• y1 : Regency/City Economic Growth

• y : Average Regency/City Economic Growth

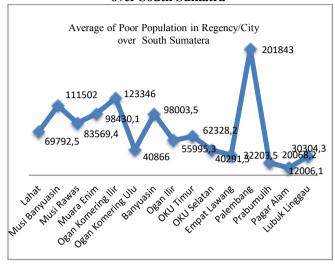
IV. DISCUSSION

Development of the Human Development Index and Economic Growth in Regencies/Cities in South Sumatra

The development of poor population in South Sumatra Province tended to decrease from 2008-2017 and experienced an increase in the number of poor people in 2014 but declined again in the following years until 2016. Overall, according to data taken from the Central Statistics Agency (2018) the poverty rate in 2011 decreased by 3.9% from 2010. In 2012 it decreased by 1.9%, in 2013 there was an increase in poor population by 0.17% until 2014 experienced the largest increase reaching 4.1 %, and experienced a decline in the poor population again in 2015 by 0.3% until 2016, continuing to experience a decline in the poor population to 4.1%. This explains that in 2010 to 2012 the poor population always experienced a decline but

in 2013 and 2014 the poor population had increased in several districts / cities in South Sumatra, while the regencies/cities experienced a decline in 2013-2014 namely; Musi Banyuasin, Empat Lawang, Palembang and Prabumulih. Furthermore, overall regencies/cities in South Sumatra experienced a decline in the number of poor people until 2016. Conditions can be seen in Figure 3.

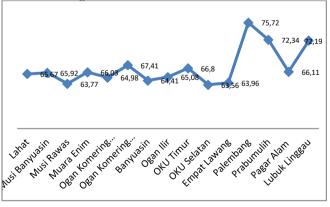
Picture. 3 Average of Poor Population in regency/city over South Sumatra



Source: Indonesia Statistic Agency (BPS), data processed 2019

Based on Figure 3, it explains that the region that has the largest number of poor inhabitants is occupied and the region with the highest number of poor people in Palembang City has the highest average number of poor people during the period 2008-2017, with an average number of poor population of 201843 people, the next is OKI with an average of 118.41 million people and Musi Banyuasin with an average of 108.57 million people. The high number of poor people is due to the high number of residents in the region. The area that has the lowest number of poor people in South Sumatra Province is Kota Pagar Alam, with an average number of poor people totaling 12.006.

Figure 4. Human Development Index (HDI) in regencies/cities in South Sumatra



Source: Indonesia Statistic Agency (BPS), data processed 2019

The Human Development Index (HDI) is a measurement, comparison of life expectancy, literacy, education and living standards for all countries around the world. HDI itself is used as a measure of the welfare of a

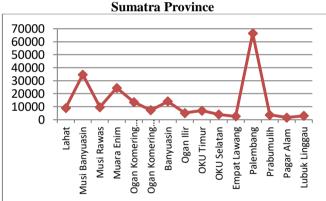


community in a region/country whether the country is classified as having a low, medium, high, and very high level of welfare.

In South Sumatra Province itself, the Human Development Index is in the range of 63-70 percent when viewed based on the division of the level of Human Development Index according to UNDP, then Human Development / community welfare in all Regencies / Cities of South Sumatra Province is included in the category of moderate human development. However, in 2010 the methodology for calculating the Human Development Index (HDI) has used a different method compared to the previous year. So that for the year 2008-2009 the HDI was in the range of 70 percent and in 2010-2017 the HDI was in the range of 60-67 percent. for the period 2010-2017 the Human Development Index (HDI) of the Regency / City of the Province of South Sumatra continues to increase every year, this shows that the welfare of the people in the Province of South Sumatra continues to increase. The highest Human Development Index (HDI) is occupied by Palembang City with an average of 75.72 percent while for the lowest Human Development Index is occupied by the South Oku District with an average of 63.36 percent.

Economic growth is a picture of the work of the government in the welfare of its people. Economic growth is one indicator of increasing the welfare of the population of an area.

Figure 5. Economic Growth in Regency/City of South



Source: Indonesia Statistic Agency (BPS), data processed 2019

Based on the picture in Figure 5, it can be seen that the economic growth of Regencies/Cities in South Sumatra Province during the last 10 years has continued to increase every year. Palembang City has the biggest economic growth compared to other regions, this is seen from the average number of Gross Regional Domestic Product of Palembang City over the last 10 years which is greater than other regions, which is Rp. 66408.8. While the lowest economic growth is occupied by the City. The Natural Fence with an average Gross Regional Domestic Product over the past 10 years is only Rp1628.

Mapping the Human Development Index in Regencies/Cities in South Sumatra.

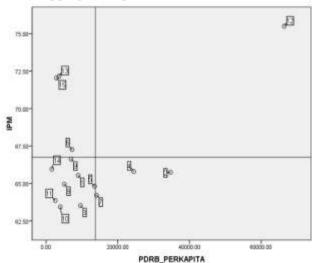
Poverty is a thing that colors the development of an area both district or city. Classification of poverty levels can be used Klassen Typology. Through this analysis it can be seen the characteristics of Poverty in 15 regencies/cities

compared to the average poverty of regencies/cities during the study period. Called high, if the indicators of a region are higher than the average of all regencies/cities in South Sumatra Province. Called low, if the indicator of an area is lower than the average of all regencies/cities in South Sumatra Province. The pattern and structure of poverty levels in regencies / cities can be divided into one of four existing characteristics, namely (6):

- 1. A developed and fast-growing region or a region with high economic growth and low poverty.
- 2. Developed but depressed regions or areas with high economic growth but high poverty rates.
- 3. Regions that are growing or areas with low poverty but high economic growth.
- 4. Relatively disadvantaged areas or areas with low economic growth and high poverty rates.

If it is seen based on the entire regency/city in South Sumatra Province, the highest Human Development Index (HDI) is occupied by Palembang City with an average of 75.72 percent while for the lowest Human Development Index is occupied by the South Oku District with an average of 63.36 percent. Mapping HDI based on Typology Klassen can be seen in Figure 6.

Figure 6. Regencies/Cities Human Development Index Mapping in the province of South Sumatra



Source: data processed SPSS 2019



Through this analysis it can be seen the characteristics of HDI in 15 districts / cities compared to HDI. Based on the calculation of typology Klassen can be seen in table 3 below.



Table 3. Regencies/Cities Quadrant Classification in South Sumatra

Kabupaten/Kota	Kuadran
Lahat	IV
Musi Banyuasin	II
Musi Rawas	IV
Muara Enim	II
Ogan Komering Ilir	II
Ogan Komering Ulu	III
Banyuasin	II
Ogan Ilir	IV
OKU Timur	IV
OKU Selatan	IV
Empat Lawang	IV
Palembang	I
Prabumulih	III
Pagar Alam	IV
Lubuk Linggau	III

Source: data processed, 2019

Classification of Human Development Index (HDI) into four quadrants can be seen in table 4.

Table 4. Classification of Human Development Index (HDI) according to the Klassen Typology

(11D1) decording to the indissen Typology			
PE (y) HDI (r)	(y1> y)	(y1< y)	
(r1>r)	Quadrant I The region is progressing and growing fast, namely Palembang	Quadrant III Regions are growing, namely Musi Banyuasin, Muara Enim, Ogan Komering Ilir	
(r1< r)	Quadrant II Developed but depressed regions, namely Ogan Komering Ulu, Prabumulih	Quadrant IV Relatively disadvantaged areas, namely Lahat, Musi Rawas, Ogan Ilir, East OKU, South OKU, Empat Lawang	

Source: data processed, 2019

Information:

r1 : Number of Regency/City Poor People
 r : Average Regency/City Poor Population

• y1 : Regency/City Economic Growth

• y : Average Regency/City Economic Growth

Based on the grouping of regions into four quadrants. The results of the mapping can be seen that the typology of regional classification based on the Human Development

Index (HDI) and economic growth shows the following results:

- 1. The area included in the first quadrant classification with the Human Development Index (HDI) and the economic growth of developed and fast-growing regions is Palembang City, this is reinforced by the high per capita GRDP of Palembang City when compared to other Regencies / Cities.
- 2. Regions that are in the second quadrant classification with developed regions but under pressure with a low Human Development Index (HDI) and high economic growth are Musi Banyuasin, Muara Enim and Ouo Komering Ilir Kabuoaten.
- 3. Regions that are in the third quadrant, namely regions that are growing with the classification of high Human Development Index (HDI) and low economic growth are Ogan Komering Ulu Regency, Prabumulih City.
- 4. Meanwhile, Lahat Regency, Musi Rawas Regency, Ogan Ilir Regency, East OKU Regency, South OKU Regency, Empat Lawang Regency occupy the fourth quadrant which is a relatively underdeveloped area with the Human Development Index (HDI) and low economic growth.

V. CONCLUSION

The Human Development Index (HDI) is often used as a benchmark for the level of prosperity. Economic growth is often used as a benchmark for the success of regional development. Mapping the human development index looks at the potential of HDI in each district / city in South Sumatra. The data used are secondary data from 15 districts / cities during the period 2010-2017. The research method is descriptive quantitative with Klassen Typology analysis.

Klassen's Typology calculation results stated Quadrant I was Palembang. Quadrant II covers Musi Banyuasin, Muara Enim and Banyuasin District. Quadrant III covers Ogan Komering Ulu Regency, Prabumulih City and Lubuk Linggau City. Quadrant IV covers Lahat, Musi Rawas Regency, Ogan Ilir Regency, East OKU Regency, South OKU Regency, Empat Lawang Regency and Pagaralam City.

REFERENCES

- (1) BPS Provinsi Sumatera Selatan. 2018. *Indikator Kesejahteraan Rakyat Provinsi Sumatera Selatan Tahun 2018*. Palembang.
- (2) BPS Provinsi Sumatera Selatan. 2018. PDRB Provinsi Sumatera Selatan Menurut Lapangan Usaha 2013-2017. Palembang
- (3) BPS Provinsi Sumatera Selatan. 2018. ProvinsiSumatera Selatan Dalam Angka Tahun 2018. Palembang
- (4) BPS Provinsi Sumatera Selatan. 2018. PDRB Provinsi Sumatera Selatan Menurut Kabupaten/Kota 2013-2017. Palembang



- (5) BPS Provinsi Sumatera Selatan. 2018. Buku Saku Data dan Indikator Sosial Provinsi Sumatera Selatan 2006-2017. Palembang
- (6) Kuncoro, Mudrajad. 2003. Ekonomi Pembangunan. Yogyakarta: YKPN.
- (7) Peraturan Menteri Dalam Negeri Nomor 13 Tahun 2006 tentang Pedoman Pengelolaan Keuangan Daerah.
- (8) Rohima, Siti, 2013. Self Empowerment Model of The Poor in Improving Social Walfare (Studies in the District of Alang-Alang Lebar Palembang, Indonesia), Journal ofIndonesian Economy and Business, Vol 28/2, 211-225
- (9) Sjafrizal, 2008. Ekonomi Regional, Teori dan Praktek, Jakarta
- (10) Suparmoko, M. 2002. Ekonomi Publik, Untuk Keuangan dan Pembangunan Daerah. Andi Yogyakarta.

- (11) Todaro, M. and Smith, S. 2006. Economic development 9 ed. Harlow, England: Pearson Education Limited.
- (12) Todaro, Michael P. 2007. Pembangunan Ekonomi. Jakarta: Erlangga.
- (13) Prakoso, Randy Yulian Bayu. 2011. Pengaruh Pendapatan Asli Daerah, Dana Alokasi Umum dan Produk Domestik Regional Bruto terhadap Belanja Daerah (studi empiris Kabupaten/Kota Provinsi Jawa tengah). Universitas Diponogoro.