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## URBAN POVERTY (CASE STUDY OF EAST JAVA FROM 2018-2022)



**Alfinta Lestianpuri<sup>1</sup>**  
Universitas Muhammadiyah Surakarta, Surakarta, Indonesia  
[alfinta13.d2@gmail.com](mailto:alfinta13.d2@gmail.com)

**Muhammad Arif<sup>2</sup>**  
Universitas Muhammadiyah Surakarta, Surakarta, Indonesia  
[arif@ums.ac.id](mailto:arif@ums.ac.id)

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### Abstract

This study seeks to assess how average years of schooling, job opportunities, population density, and local revenue affect poverty in nine cities within East Java Province from 2018 to 2022. The research utilizes secondary data and adopts a quantitative approach. A panel data regression method using a Fixed Effect Model (FEM) is employed. Findings indicate that average years of schooling, employment opportunities, and population density all have a significant negative impact on urban poverty. In contrast, Regional Original Income does not significantly affect urban poverty. It is crucial for the government to effectively manage local revenue to ensure equitable distribution among the population, particularly benefiting the poor.

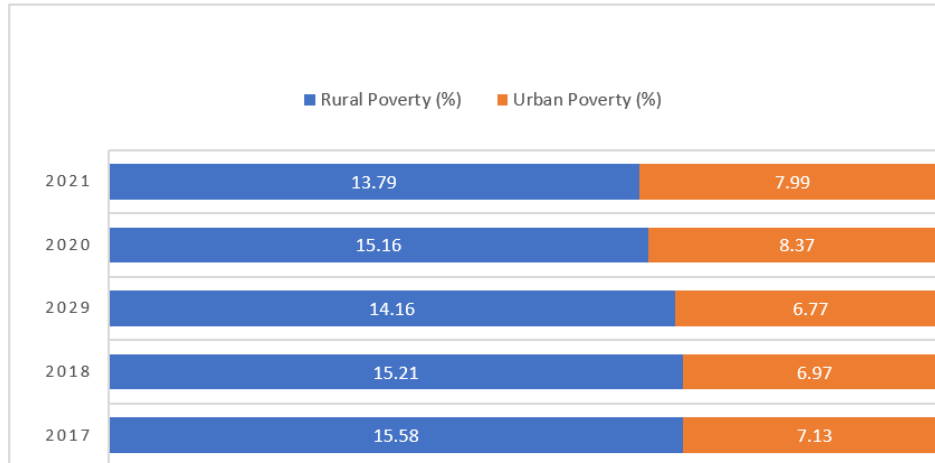
**Keywords:** Urban Poverty, Average Years of Schooling, Employment Opportunities Rate, Population Density, Regional Original Income

## INTRODUCTION

Poverty in developing countries is a complex issue. Although most of these countries have seen significant increases in production and national income, the gap in income distribution between the rich and the poor has also widened (Sartika et al., 2016). Poverty is an issue that occurs not only in rural areas but also in metropolitan regions. The term 'urban poverty' refers to a range of social and economic problems that develop in industrial cities. The phrase 'urban poverty' encompasses a series of social and economic issues commonly found in industrial cities, caused by various factors such as increasing individualism and social dualism stemming from labor market dualism, or the division of society into those who are prosperous and those who are marginalized (Hila, 2019)

Poverty is an issue faced by many regions in Indonesia. According to poverty data from BPS, in September 2020, 10.19 percent of Indonesia's population lived in poverty, an increase of 0.97 percent compared to the previous year. Meanwhile, the proportion of the urban poor in Indonesia rose from 7.38 percent in March 2020 to 7.88 percent in September 2020, with 12.02 million urban poor residents in Indonesia (Badan Pusat Statistik, 2021).

The Indonesian economy has seen significant progress over the past 10 years, and the poverty rate in the country has decreased in both urban and rural areas. Despite these advancements, 13% of the population still lives in poverty, and 40% are above the poverty line but remain at risk of falling into poverty. Approximately 18 percent of the population, or 20 million people, live in or near poverty in urban areas. This figure is expected to surpass the rural poverty rate by 2020. The most vulnerable subgroups of the urban poor include those living in informal settlements, street children, child laborers, and urban migrants. Regionally, about two-thirds of the urban poor population resides on Java Island (Kementrian Koordinasi Bidang Kesra, 2013).



**Graph 1**  
**Rural and Urban Poverty in East Java Province**

East Java Province is the third poorest province on Java Island, with a poverty rate of 10.20 percent in 2019. In East Java itself, supported by the development of both rural and urban life, there has been an increase in poverty rates. According to the Annual Action Plan for East Java Province 2022 regarding rural and urban poverty, from September 2017 to September 2019, rural and urban poverty recorded a decline. In September 2017, rural poverty was at 15.58 percent, and the downward trend continued until September 2019, reaching 14.16 percent. Meanwhile, urban poverty in September 2017 was 7.13 percent, and this downward trend continued until September 2019, reaching 6.77 percent. However, in 2020, the decline observed from 2017 to 2019 ceased, and both rural and urban poverty began to rise. Rural poverty in September 2019 was at 14.16 percent, which increased to 15.16 percent in September 2020. Similarly, urban poverty rose from 6.77 percent in September 2019 to 8.37 percent in September 2020. When comparing the increases, the rise in urban poverty was higher than that in rural poverty. By September 2021, both rural and urban poverty rates experienced a decline, with rural poverty decreasing from 15.16 percent in September 2020 to 13.79 percent in September 2021. Urban poverty also saw a decrease, falling from 8.37 percent in September 2020 to 7.99 percent in September 2021. In September 2021, the decline in poverty rates was more pronounced in rural areas (Bappeda, 2022).

**Table 1.**  
**Percentage of Poor Population by City in East Java Province**

City	Percentage Of Poor Population (Percentage)				
	2018	2019	2020	2021	2022
Kediri	7,68	7,16	7,69	7,75	7,23
Blitar	7,44	7,13	7,78	7,89	7,37
Malang	4,10	4,07	4,44	4,62	4,37
Probolinggo	7,20	6,91	7,43	7,44	6,65
Pasuruan	6,77	6,46	6,66	6,88	6,37
Mojokerto	5,50	5,15	6,24	6,39	5,98
Madiun	4,49	4,35	4,98	5,09	4,76
Surabaya	4,88	4,51	5,02	5,23	4,72
Batu	3,89	3,81	3,89	4,09	3,79

Source: BPS East Java Province

Based on Table 1, It is evident that Batu City had the lowest average percentage of poor residents from 2018 to 2022, at 3.89 percent. During the period from 2018 to 2019, Kediri City recorded the highest percentage of poor residents, reaching 7.68 percent. In contrast, from 2020 to 2022, Blitar City had the highest percentage of poor residents, with figures of 7.78 percent in 2020, 7.89 percent in 2021, and 7.37 percent in 2022.

## REVIEW OF LITERATURE

### Poverty

According to (Sen, 2000) the income analysis approach to poverty only encompasses a small portion of the many issues related to poverty. Poverty is often associated with disparities in purchasing power, income, or consumption; however, it is much broader than that. A community can be considered poor if it lacks access to basic education or basic healthcare services due to weak economic conditions. In addition to quality of life, having dirt floors, poor sanitation, and a lack of electrical resources for lighting and cooking are also aspects of poverty.

In the research conducted by Sharp et al in (Nurkse, 1953) efforts were made to identify the causes of poverty from an economic perspective. First, from a microeconomic viewpoint, due to wealth inequality and poverty, income distribution ultimately becomes uneven. The resources available to the poor are limited and of poor quality. Second,

disparities in the quality of human resources lead to poverty. Low productivity results from the low quality of human resources, which in turn leads to low income. Factors such as low education, underdevelopment, discrimination, or hereditary issues contribute to the low quality of human resources. Third, disparities in access to capital cause poverty.

These three factors causing poverty converge on the theory of the poverty cycle (the poverty trap) according to (Nurkse, 1953) Low productivity is caused by underdevelopment, market weaknesses, and a lack of capital. Their low income is a direct result of their low productivity. Low savings and investment are a consequence of low income. Insufficient investment leads to underdevelopment and other related issues.

The poverty cycle theory indicates that to address the issue of poverty, underdevelopment must be broken from the cycle. Every citizen should have access to high-quality education from the state to combat underdevelopment and reduce poverty. This emphasizes that educational institutions, investment in education, the quality of education, and fair access to education are essential for reducing poverty (Putra & Arka, 2018).

### **Population Density**

According to (Malthus, 1798), population growth will always outpace food supply, unless something he refers to as moral restraints occurs, such as epidemics or natural disasters. Karl Marx disagreed with Malthus's theory. According to Marx, the food supply is not influenced by the human population, but rather, the human population affects job opportunities. Poverty arises when capitalists neglect certain workers' rights. Marx also stated that if technology does not replace humans, productivity will increase alongside population growth. Thus, humans do not need to limit their birth rates, which means rejecting Malthus's theory of moral restraint to control birth rates. Improving the quality of life for residents in densely populated areas is more challenging than in areas with low population density. This will lead to different social, economic, welfare, and security challenges. Cities are often visited by urban residents, which is why we frequently observe high population density in urban areas. Conversely, population density can drive economic expansion and reduce poverty, provided that this density increases productivity and the income generated is invested in higher education (Azizah et al., 2022). This aligns with Karl Marx's theory, which states that the root causes of poverty and misery are not rapid population growth but rather

the violation of workers' rights by capitalists. Furthermore, Marx observed that productivity increases with population growth as long as technology does not replace humans.

### **Regional Original Income**

According to (Mardiasmo, 2022) Local Revenue (PAD) includes income obtained from local taxes, land and building taxes, special revenues from the management of regional assets, and other revenues. The goal is for each local government to create a strong economic structure in their area, thereby increasing their revenue, as the main source of local income comes from various primary economic sources in the region. Increasing local revenue will drive the expansion of the regional economy. Economic growth in the region that exceeds the average will be stimulated and propelled by an increase in local revenue. The enhancement of local revenue has the potential to optimize and stimulate growth in other economic sectors, including trade and industry, services, and other sectors. Effective management of budget allocation is a crucial revenue management strategy needed to maximize and control Local Revenue, thus impacting economic growth and reducing poverty (Anwar et al., 2016).

### **Employment Opportunities Rate**

Lewis's theory on employment states that having too much work is an advantage, not a disadvantage. Excess capacity in an industry will support increased output and labor supply in other industries. Lewis contends that developing countries have two economic sectors: the modern sector and the traditional sector. The traditional sector encompasses agriculture in rural regions as well as the informal sector in urban areas, which includes street vendors, small food stalls, and retailers. The informal sector can absorb excess labor during industrialization and is therefore considered a safety valve for employment. As surplus labor from the informal sector moves into the industrial sector (the modern sector), wages in rural areas are expected to rise. This increase in wages will help narrow the income disparity between rural and urban regions (Todaro & Smith, 2013). If there are enough job openings available to match the number of workers, then all available workers will have access to job options. Offering suitable wages and job opportunities to the poor is a key strategy used in developing countries to reduce poverty levels and income inequality (Putra & Arka, 2018)

### **Average Length of Schooling**

According to (Todaro Michael Paul, 2006), education is a deliberate and organized effort to create an environment and learning methods that encourage students to fully realize their potential. Society can become more professional and skilled through education, which can enhance the economy and improve the output and productivity of the nation. A person's education level has an impact on the growth of human resources, as the increase in knowledge and skills that enhances productivity is accompanied by higher levels of education. The poverty rate is significantly influenced by low levels of education. Therefore, education can lift society out of poverty and empower individuals (Noor & Zulfaridatulyaqin , 2019). This is in line with Nurkse's theory of the poverty cycle, which states that all citizens should have access to high-quality education to help them overcome underdevelopment.

### **Research Hypotheses**

1. The average Length of schooling has a negative and significant impact on urban poverty in East Java Province.
2. Regional Original Income has a negative and significant impact on urban poverty in East Java Province.
3. Population density has a positive and significant impact on urban poverty in East Java Province.
4. Employment opportunities Rate has a negative and significant impact on urban poverty in East Java Province.

### **RESEARCH METHOD**

This study utilizes secondary data sourced from the Central Statistics Agency (BPS) and relevant official websites. It employs panel data analysis, integrating time series data from 2018 to 2022 with cross-sectional data from nine cities in East Java Province. Multiple linear regression analysis is used to assess the influence of independent variables on the dependent variable. The dependent variable in this research is poverty, while the independent variables consist of the average years of schooling, population density, Local Revenue, and employment opportunities. The analytical tools used are Eviews-12 and Microsoft Excel. Below is the econometric model used in this study

$$POV_{it} = \beta_0 + \beta_1 ALS_{it} + \beta_2 EOR_{it} + \beta_3 \log ROI_{it} + \beta_4 PD_{it} + \varepsilon_{it}$$

- POV : Poverty Rate (percentage)  
 $\beta_0$  : Constant  
 $\beta_1, \beta_2, \dots, \beta_n$  : Multiple Regression Coefficients  
 ALS : Average Length of Schooling (years)  
 EOR : Employment Opportunity Rate (percentage)  
 ROI : Regional Original Income (Billion)  
 PD : Population Density (people/km<sup>2</sup>)  
*it* : Time Series and Cross Section  
 $\varepsilon$  : Error Term

## RESULTS AND DISCUSSION

The outcomes of the panel data regression analysis, conducted using three methods Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM) are presented in Table 2.

**Table 2**  
**Panel Data Regression Results**

Variable	Regression Coefficient		
	CEM	FEM	REM
C	7.320880	20.05191	19.93795
LOG (ROI)	-0.605959	0.413741	0.287367
EPR	0.052906	-0.119197	-0.117314
ALS	-0.466811	-0.342180	-0.308550
PD	0.000324	-0.000377	-0.000314
$R^2$	0.225386	0.981277	0.429657
Adjusted $R^2$	0.147924	0.974256	0.372622
Statistic F	2.909649	139.7625	7.533302
Prob. Statistic F	0.033318	0.000000	0.000127

The Chow test is employed to determine the most suitable panel data regression model among the Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM). The findings of the Chow test are displayed in Table 3.

**Table 3**  
**Chow Test**

Effects Test	Statistic	d.f.	Prob.
Cross-section F	161.491547	(8,32)	0.0000
Cross-section Chi-square	167.518159	8	0.0000

According to Table 3, the results from the Chow test, conducted using the Redundant Test method, produced a chi-square probability value of 0.0000. This value is below the alpha level of 0.10, resulting in the rejection of  $H_0$ . Therefore, it can be concluded that the Fixed Effect Model is more suitable for testing the hypotheses in this study compared to the Common Effect Model.

The results from the Chow test show that the Fixed Effect Model outperforms the Common Effect Model. Therefore, the process of identifying the best model continues with the Hausman test to evaluate whether the Random Effect Model is more effective than the Fixed Effect Model.

**Table 4**  
**Hausman test**

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-Section Random	8.694691	4	0.0692

The Hausman test results yielded a probability value of 0.0692, which is below the alpha level of 0.10, resulting in the rejection of  $H_0$ . Thus, according to the Hausman test, the most suitable panel data approach for this study is the Fixed Effect Model.

**Table 5**  
**Fixed Effect Model (FEM)**

$$POV_{it} = 20,0519 - 0,3421ALS_{it} - 0,1191EOR_{it} + 0,4137logROI_{it} - 0,0003PD_{it}$$

(0,0479)\*\*      (0,000)\*      (0,1288)  
 (0,0132)\*\*

$$R^2 = 0,981277; \quad DW = 2,409706; \quad F = 139,7625; \quad Prob. F = 0,00000$$

Note: \*Significant at  $\alpha$  0,01; \*\*Significant at  $\alpha$  0,05

The F test is utilized to evaluate the validity of the model and to determine if all independent variables together influence the dependent variable. If the Prob. F statistic is lower than the alpha value, it indicates that the independent variables have a simultaneous effect on the dependent variable. According to the estimation table of the Fixed Effect Model, the Prob. The f statistic is 0.00000, which signifies that Prob.  $F < \alpha$ . Consequently, it can be concluded that the Average Length of Schooling, Employment Opportunity Rate, Regional Original Income, and Population Density collectively impact poverty in the nine cities of East Java Province.

The coefficient of determination ( $R^2$ ) from the Fixed Effect Model regression estimation shows an  $R^2$  value of 0.981277, meaning that 98.12% of the variation in poverty is explained by variations in the Average Length of Schooling, Employment Opportunity Rate, Regional Original Income, and Population Density. The remaining 1.88% is attributed to variations outside the model.

**Table 6**  
**Results of the Validity Test of Independent Variable Effects**

<b>Variable</b>	<b>Coefficients</b>	<b>Sig.t</b>	<b>Criteria</b>	<b>Conclusion</b>
ALS	-0,3421	0,0479	< 0,05	Significant
EOR	-0,1191	0,000	< 0,05	Significant
LogROI	0,4137	0,1288	> 0,05	Not Significant
PD	-0,0003	0,0132	< 0,05	Significant

The validity test results shown in Table 5 reveal that the independent variables having a significant impact are the Average Length of Schooling, Employment Opportunity Rate, and Population Density.

The Average Length of Schooling variable has a regression coefficient of -0.3421, indicating a linear relationship. This implies that an increase of 1 year in the Average Length of Schooling will lead to a 0.3421 percent decrease in poverty. Conversely, a decrease of 1 year in the Average Length of Schooling will result in a 0.3421 percent increase in poverty.

The Employment Opportunity Rate variable has a regression coefficient of -0.1191, indicating a linear relationship. This means that a 1 percent increase in the Employment Opportunity Rate will lead to a 0.1191 percent decrease in poverty. Conversely, a 1 percent

decrease in the Employment Opportunity Rate will result in a 0.1191 percent increase in poverty.

The Population Density variable has a regression coefficient of -0.0003, indicating a linear relationship. This suggests that an increase of 1 person/km<sup>2</sup> in Population Density will result in a 0.0003 percent decrease in poverty. Conversely, a decrease of 1 person/km<sup>2</sup> in Population Density will lead to a 0.0003 percent increase in poverty.

Meanwhile, the Regional Original Income variable does not have an effect on poverty in the nine cities of East Java Province.

The Average Length of Schooling has a negative effect on urban poverty. This study's findings support the research hypothesis that urban poverty is significantly and negatively influenced by the average length of schooling. The longer an individual stays in school, the greater the likelihood of acquiring the skills needed in the job market. Individuals with higher education are more likely to obtain higher salaries, enabling them to meet basic needs and reduce poverty levels. These findings are consistent with the research conducted by (Nizar & Arif, 2023) which states that the Average Length of Schooling has a negative relationship with poverty.

Employment Opportunity Rate has a negative effect on poverty. When individuals secure employment, household income increases, allowing them to meet basic needs such as food, housing, education, and healthcare, which directly helps to lower poverty levels. When people have income, they tend to spend their money in local markets, which can boost the demand for goods and services, thereby creating more job opportunities in other sectors and reducing poverty overall. These findings align with the research hypothesis that employment opportunities have a significant negative impact on urban poverty. This study's results are consistent with the research conducted by (Putra & Arka, 2018) which indicates that employment opportunities have a negative and significant effect on poverty levels.

Population Density variable has a negative effect on poverty. Urban areas have higher population densities due to the concentration of companies, industries, and businesses in one location, creating more job opportunities compared to rural areas. Because of the abundant job prospects and increased income in urban areas, many people migrate there in an effort to alleviate poverty. The number of workers and job opportunities will increase alongside

population growth, leading to a gradual decrease in poverty levels. These findings align with the research conducted by (Azizah et al., 2022) which states that population density has a significant negative impact on poverty in urban areas of West Java Province. Additionally, the study by (Putranida & Rahmi, 2020) indicates that regression analysis shows a significant negative effect of population density on poverty in the city of Bandung.

Regional Original Income variable does not have an effect on urban poverty in East Java Province. Although local governments have adequate sources of income, such as local taxes, levies, and revenues from local natural resources, if this income is not distributed equitably among the population, particularly among the poor, poverty levels will not decrease. This situation may arise if most of the Regional Original Income is enjoyed by certain groups, such as economic or political elites, without providing real benefits to the poor. These findings do not align with the research hypothesis that Regional Original Income has a significant negative effect on urban poverty in East Java Province. This study's results are consistent with the research conducted by (Amami & Asmara, 2022) which indicates that PAD over a 15-year period, from 2006 to 2020, does not have a significant effect on poverty.

## CONCLUSION

Poverty is an issue that occurs not only in rural areas but is also increasingly common in metropolitan regions. The term "urban poverty" refers to the various social and economic problems that arise in industrial cities. A range of social and economic issues prevalent in industrial cities is collectively referred to as "urban poverty." These issues include rising individualism and the existence of social dualism, which is caused by a dual labor market, or the division of society between those who enjoy prosperity and those who are marginalized and excluded. The aim of this study is to examine how the variables of Regional Original Income, Employment Opportunity Rate, Population Density, and Average Length of Schooling affect the level of urban poverty in East Java Province from 2018 to 2022.

The Fixed Effect Model approach is used to perform panel data regression to achieve the research objectives. The calculated F value, or F-statistic, is determined to be 139.7625, with a Prob. F statistic of 0.00000, indicating that the Prob. F is less than  $\alpha$ . Thus, it can be stated that poverty in the nine cities of East Java Province is simultaneously influenced by

the variables of Average Length of Schooling, Employment Opportunity Rate, Regional Original Income, and Population Density. The variables of Average Length of Schooling, Employment Opportunity Rate, and Population Density have a negative effect on the level of poverty, consistent with the results of the validity test. Meanwhile, the level of poverty is not influenced by the Regional Original Income variable.

## REFERENCES

- Amami, R., & Asmara, K. (2022). Analisis Pengaruh PAD, DAU, DAK, dan Belanja Modal terhadap Kemiskinan di Kabupaten Ngawi. *Jurnal Ekobistek*. <https://doi.org/10.35134/ekobistek.v1i1i2.297>
- Anwar Meilita Lukitasari, Palar Sutomo Wim, & Sumual Jacline I. (2016). Pengaruh DAU, DAK terhadap pertumbuhan ekonomi dan kemiskinan (Kota Manado tahun 2001-2013). *Jurnal Berkala Ilmiah Efisiensi*, 16.
- Azizah Syifa Putri Nur, Pratiwi Liliani Sumarni, Amaliah Ima, & Fitriyana Freska. (2022). Sanitasi dan kepadatan penduduk sebagai dinamika kemiskinan kota: Studi kasus Provinsi Jawa Barat. *Jurnal Nuansa Akademik*, 7.
- Badan Pusat Statistik. (2021). *Berita Resmi Statistik (Profil Kemiskinan di Indonesia September 2020)*.
- Bappeda. (2022). *RAT (Rencana Aksi Tahunan Penanggulangan Kemiskinan)*.
- Hila Ana Belen Cano. (2019). *Urban Poverty*.
- Kementrian Koordinasi Bidang Kesejahteraan Rakyat. (2013). *Indonesia : Urban Poverty and Program Review*.
- Malthus. (1798). *An essay on the principle of population*. electronic scholarly publishing project.
- Mardiasmo. (2022). *Otonomi dan Manajemen Keuangan Daerah*.
- Nizar Fauzan, & Arif Muhammad. (2023). Pengaruh rata lama sekolah, pengeluaran perkapita, pendapatan asli daerah, investasi, tingkat pengangguran terbuka terhadap tingkat kemiskinan di Nusa Tenggara Barat tahun 2012-2021. *Jurnal Ilmiah Manajemen*, 4.
- Noor Muhammad Alfian, & Zulfaridatulyaqin Siti Mutmainah. (2019). Pengaruh tingkat pendidikan, pertumbuhan ekonomi, dan jumlah penduduk terhadap tingkat kemiskinan di kabupaten Hulu Sungai Tengah. *JIEP: Jurnal Ilmu Ekonomi Dan Pembangunan*, 2, 1028–1038.
- Nurkse Ragnar. (1953). *Problems of Capital Formation in Underdevelopment Countries*. Oxford University Press.

- Putra I Komang Agus Adi, & Arka Sudarsana. (2018). Analisis Pengaruh Tingkat Pengangguran terbuka, Kesempatan kerja, dan tingkat pendidikan terhadap tingkat kemiskinan pada kabupaten/kota di provinsi Bali. *E-JurnalEPUnu*, 7[3]:416-444, 7.
- Putranida Shidqy Fauzan, & Rahmi Dewi. (2020). Pengaruh faktor sosial ekonomi terhadap kemiskinan di kota bandung tahun tahun 2010-2020. *Bandung Conference Series: Economics Studies*.
- Sartika, C., Balaka, My., Aya Rumbia, W., Jurusan Ilmu Ekonomi Universitas Halu Oleo, M., & Pengajar, S. (2016). Studi Faktor-Faktor Penyebab Kemiskinan Masyarakat Desa Lohia Kecamatan Lohia Kabupaten Muna 1. *Jurnal Ekonomi (JE)*, 1(1). <http://ojs.uho.ac.id/index.php/JE>
- Sen Amartya. (2000). *Development as Freedom*. Oxford University Press.
- Todaro Michael P, & Smith Stephen c. (2013). *Pembangunan Ekonomi*. Erlangga.
- Todaro Michael Paul. (2006). *Pembangunan Ekonomi* (Edisi Kesembilan). Erlangga.