The Influence of Family Income, Living Environment and Education on Poverty in Palopo City

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ARTICLE INFO	ABSTRACT
	This study examines the influence of family income, living environment, and education on poverty levels in Palopo City. Utilizing secondary data from the Palopo City Central Statistics Agency, the research analyzes the relationship between these exogenous variables—family income, living environment, and education—and the endogenous variable of poverty. The study employs panel data, combining time series and cross-sectional data, and uses quantitative analysis through path analysis to evaluate the relationships. The findings reveal that all proposed hypotheses are supported. Hypothesis 1 confirms that family income has a significant positive effect on poverty in Palopo City, indicating that lower family income levels are strongly associated with higher poverty rates. Hypothesis 2 establishes that the living environment has a positive and significant effect on poverty, suggesting that poor living conditions contribute substantially to poverty levels. Hypothesis 3 demonstrates that education also has a positive and significant effect on poverty, implying that limited educational attainment exacerbates poverty issues. These results underscore the interconnectedness of income, environmental conditions, and education in shaping poverty dynamics. The findings highlight the need for integrated policy interventions aimed at improving family income, enhancing living conditions, and increasing educational access to effectively combat poverty in Palopo City. Future research could explore other potential determinants and their interaction with these factors.

1. Introduction

1.1 Background

The economic growth and development of a region requires various important aspects to maintain economic stability and progress in facing world globalization. Economic growth describes an increase in a country's productivity to produce goods and services. In managing a country's economy, natural resources are needed, or in other words, a quality environment is needed. Environmental quality is an important indicator which can provide optimal supporting capacity for human survival in an area, therefore economic growth and environmental quality are a unity that is difficult to separate (Jazuli, 2015).

A country can optimize natural resources as best as possible to support economic development, so that the use of natural resources can be directed towards protecting the environment with efforts to grow the economy (Pongtuluran, 2015). The use and utilization of natural resources in a country must be carried out as effectively and efficiently as possible to support economic growth which is expected to create a balance between natural resources or the environment and economic growth (Purba et al., 2020). Indonesia is an archipelagic country which is divided into 3 regions, namely the

Western region of Indonesia, the Central region of Indonesia and the Eastern region of Indonesia (Ramdhan & Arifin, 2013). The Western Region consists of 18 provinces divided into the islands of Sumatra, Java and several provinces in Kalimantan. The central part of Indonesia consists of 12 provinces divided into the islands of Bali, Nusa Tenggara, Sulawesi, and several provinces in Kalimantan (Yanti & Budiyati, 2020). Meanwhile, the eastern part of Indonesia consists of 4 provinces which are divided into the islands of Maluku and Papua.

The Environmental Kuznets Curve (EKC) theory explains that the relationship between economic growth and environmental quality is that the higher national income or economic growth, the higher the environmental degradation, but after a certain level of economic growth, a society begins to improve its relationship with the environment and the level of degradation. environment is reduced (Pettinger, 2015). In this research, we examine the influence of economic growth, population growth and poverty levels on the Environmental Quality Index (IKLH).

In Indonesia, the problem of poverty is a problem that always occurs from time to time and is a major concern, because poverty is always associated with disparities in society where there is a comparison between the rich and the poor (Ishartono & Raharjo, 2016). The government continues to intensify all development efforts, both in urban and regional areas, this is done to reduce poverty rates, but in fact this problem has not been completely resolved, especially in developing countries such as Indonesia (Azizah et al, 2018). Poverty is a fundamental problem and a problem that is difficult to overcome in all countries in the world, including Indonesia (Purnomo, 2021). This is because poverty has a complex nature, meaning that existing poverty does not appear suddenly by itself but is influenced by various existing backgrounds (Parwa & Yasa, 2019). The term poverty exists when society cannot meet the level of economic prosperity in accordance with a certain standard of living (Azizah et al, 2018). Indonesia, as a member of the UN, is of course required to achieve the targets set in the Sustainable Development Goals (SDGs) declaration. The aim of the SDGs is to achieve universal common goals that focus on development issues, namely environmental, economic and social.

Reducing poverty is the main goal of all countries in the world, especially in developing countries, including Indonesia (Ramdani, 2015). According to Girsang (2011), reducing the poverty rate is not easy because it takes quite a long time, generally in various countries the poverty rate can only fall by less than 2 percent per year. Reducing poverty cannot be instantaneous, but must be done in a planned, sustainable, gradual manner and requires cooperation from various parties, both local, national and even international. Various studies have been carried out to classify poor people and also find out the causes of poverty but this has not been resolved properly, this is because firstly poverty is caused by various conditions and is multidimensional, secondly data on poor people is inaccurate so it is difficult to make appropriate policies (Purnomo, 2021). The Indonesian government has implemented various policy programs to overcome poverty (Ramdani, 2015).

Various programs have been carried out to reduce existing poverty problems, such as the Presidential Instruction for Disadvantaged Villages (IDT), the Business Credit People's Welfare Savings Program, the Critical Economic Impact Mitigation Program, and the Social Safety Network in the Health Sector, which was then followed by Direct Cash Assistance (BLT), School Operational Assistance, as well as Urban Poverty Alleviation Programs. In fact, all policy programs that have been implemented have not shown maximum results (Solikatun et al, 2014). To reduce and overcome poverty, one of the things that must be considered is that it must be done jointly and in detail and cannot be done separately from the various factors that influence poverty so that later it can be directed directly at factors that are closely related to poverty (Annur, 2013). There are many factors that

influence poverty, and one of the factors that causes poverty is low education. Education is a way for a country to progress. This is because education is related to the character development and self-defense of society in a nation. Therefore, a society's education must be high to achieve prosperity in life, because low education causes a person's ability to develop themselves to be limited and it is difficult to compete in the world of work where the average level of education is the main priority in the world of work (Azizah et al. al, 2018). Apart from that, education is one of the pillars in strengthening human capital for economic development and is a long-term investment. According to the World Bank (2021), in its report to the UN, it explained that the educational aspect is the most important aspect in human development apart from the economic aspect, because the educational aspect will improve economic life. Education is a factor that is closely related to poverty, because education is capital and an effort to improve the quality and productivity of human resources.

The concept of poverty is relative deprivation, which is more comprehensive and involves social aspects. In relative deprivation, the income threshold approach needs to be understood, according to family type and size. For individuals, families and communities, the level of analysis of needs, as well as the amount and sources of income, must be more comprehensive. Differences in gender, race and age can lead strongly to unequal distribution of resources but also to unequal distribution of demands within certain families, communities and classes (Townsend, 1993). Differences in the concept of poverty result in differences in the measurement of poverty, which can be classified into only two widely used measures – namely 'absolute' and 'relative' poverty.

Based on the background above, the author is interested in discussing the influence of family income, living environment and education on poverty in Palopo City. Apart from that, this research will also look at the direct and indirect influence of family income, living environment and education variables on poverty in Palopo City.

1.2 Problem Statement

From the background explanation above, the formulation of the problem raised is as follows;

1. Is there an influence of family income on poverty in Palopo City ?
2. Is there an environmental influence on poverty in Palopo City ?
3. Is there an influence of education on poverty in Palopo City ?

1.3 Objectives and Scope

The objectives of the research carried out are as follows;

1. To determine the effect of family income on poverty in Palopo City
2. To determine the influence of the environment on poverty in Palopo City
3. To determine the effect of education on poverty in Palopo City

2. Literature Review
2.1 Related Work

The concept of poverty has attracted the interest of politicians and intellectuals in recent years. (see Hommerlfarb, 1984, and Woolf, 1986). There are three alternative concepts of poverty included as a basis for use internationally. In principle, these are sustainability, basic needs and relative deprivation (Townsend, 1993). The concept of subsistence is defined as poverty, if their income is

insufficient to meet the minimum physical needs of life. A family is considered poor if its income minus rent is below the poverty line. The minimum income level is the barrier between poor and not poor, or is often referred to as the poverty line (Arsyad, 1992).

The next concept of poverty is 'basic needs', which began to be used in the 1970s, even though this idea actually has a long history (Townsend, 1979). Basic needs can be grouped into two, first, basic needs which are absolutely necessary to maintain life. namely adequate food, housing and clothing, as well as household equipment and supplies. The other two needs include the provision of key services provided to the community such as drinking water, sanitation, public transportation and health, educational and cultural facilities. The concept of basic needs must be placed in the context of a country's freedom, individual dignity and individual freedom without hindrance (ILO, 1977).

Poverty is a situation where a person lacks assets and valuable objects depending on certain situations, which usually compares the situation of a group of people with other groups in society. Income is the total real income of all household members which is contributed to meet collective and individual needs in the household.

According to Todaro (2000), the main reason for the influence of formal education on income distribution is that there is a positive correlation between a person's education and the income they will earn. It is true that someone who can complete secondary education or college when compared with those who are only able to complete a lower level of schooling, their income will differ by between 300 to 800 percent. Therefore, the level of income will depend on the years of schooling that can be completed, so this will encourage very unfair differences in income and create a poverty gap.

2.2 Research Gap

Several factors have been claimed to influence rural poverty in Indonesia as in other developing countries (e.g. Chemichovsky and Meesok, 1984; Sigit, 1985; Firdaussy, 1992; and Booth 1992). Rapid population growth in rural areas is often seen as a major factor driving rural poverty. Increasing population pressure can lead to problems in providing education, increasing unemployment in rural areas and reducing the availability of capital and overall reducing per capita income (Firdaussy, 1992). Family size is an important factor influencing household poverty (e.g. Chemichovsky and Meesok, 1984; Sigit , 1985; Alamgir and Ahmed, 1988; Kuznets, 1989; 1992). This factor can influence poverty in two directions. First, it may directly affect poverty, as long as household income remains constant, increasing family size will suppress the real consumption level of family members. Second, even though each household member has income, per capita income can decrease with increasing family size due to diminishing marginal productivity (Sigit, 1985, Kuznet, 1989, Firdaussy, 1992).
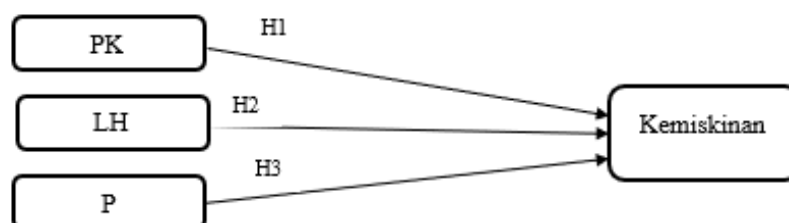
3. Methodology
3.1 Data Collection

This research uses secondary data in the form of time series from 2014 to 2023 and cross section data consisting of 9 sub-districts in Palopo City so that it is pooled data, namely a combination of time series data (2014-2023: 10 years) with 9 cross section data Subdistrict. Data collection was carried out using literature studies in the form of statistical references, periodicals, books and documents.

3.2 Analysis Techniques

To fulfill the objectives of this research and test the hypotheses that have been established, path analysis was carried out. Ghozali (2005) path analysis is a development of a regression model that is used to test the suitability (fit) of the correlation matrix of two or more models compared by researchers. Models are usually depicted with circles and arrows showing causal relationships. Path analysis is a causal model analysis of independent (exogenous) variables, intermediate (endogenous) variables and dependent variables as well as all measured variables.

Information:

PK   : Family Income
LH   : Environment
P   : Education

3.3 Validation

According to Sugiono (2016), data collection carried out in this research used library study and documentation methods. The data analysis used in this research uses multiple linear regression with a panel data approach. When using linear regression analysis with a panel data approach, what must be done is to determine the estimation model that will be used. According to Sugiyono (2016), in panel data there are three estimation approach models that must be carried out, namely the common effect model, fixed effect model, and random effect model. There are three test models that can be carried out, namely the Chow test, Hausman test, and Lagrange Multiplier test. After that, it is estimated and a classical assumption test is carried out to test the correct assumptions with the normality test, multicollinearity test, heteroscedasticity test and autocorrelation test (Gujarati, 2013). Next, hypothesis testing is carried out consisting of the coefficient of determination (R^2), simultaneous test (F test), and partial test (t test). The panel data equation which is a combination of cross section and time series data is: $Y_{it} = \beta_0 + \beta_1 PK_t + \beta_2 LH_t + \beta_3 P + e_{it}$ Description: Y: Poverty; β_0 : Constant; e : Standard error; i : Cross Section; t : Time series

4. Results and Discussion

The panel data regression model has three estimates that can be carried out using the Common Effect Model, Fixed Effect Model and Random Effect Model approaches. Next, tests will be used to select the best model from the three models (CEM, FEM, REM) which will be carried out in data analysis in this research. The Classic Assumption Test is used to test assumptions and model suitability. Hypothesis testing was also carried out in this research in order to find out how much influence the independent variables (family income, living environment and education) have on the dependent variable (poverty) which was carried out using multiple linear regression with a panel data approach. Two tests have been carried out, namely the Chow test and the Hausman test, so it can be

concluded that the best model chosen is the fixed effect model, so there is no need to carry out a Langranger multiplier test.

Tabel 1

Summary of Panel Data Model Regression Results *Fixed Effect Model*

Variabel	Koefisien	t-statistik	Prob
PK	-1,118	-2,121	0,011
LH	-0219	-1,909	0,089
P	-0,028	-6,908	0,000
Konstanta	31,865	-0,621	0,756
Adjusted R-squared	0,676		
Fhitung	4,798		
Prob(F-Hitung)	0,000		

Source: Data processed 2024

5. Discussion

The table above can explain that the education variable has a negative and significant effect on poverty in Indonesia in 2014-2023. This is in line with the first hypothesis with research by Azizah et al (2018) which explains that when education is higher it will increase the prosperity and welfare of society. Education is related to human development, this is because poverty is an illustration of the lack of success in human development. This research is also in line with research by Faradila & Imaningsih (2022) which shows that the more schools there are in each region in Aceh, the greater the poverty level. This is also in line with human capital theory which explains that one of human capital is education. Apart from that, education can be an added value for a society, the higher the education, the higher the ability and skills of the community.

Furthermore, environmental variables have no influence on poverty in Indonesia in 2014-2023 because the probability is more than alpha 5%. This is not the same as the second hypothesis and is not in line with research by Islami & Anis (2019) which explains that the environment influences poverty. This research is in line with research by Ariasih & Yuliarmi (2021), which explains that the living environment has no effect on poverty, because the quality of the community's living environment is good and good. Apart from that, people also don't have jobs so it has no effect on reducing poverty. This research is also in line with research by Purnomo et al (2021) which explains that the environment does not affect poverty because public facilities can be reached by all levels of society, including the poor.

The family income variable has a probability number less than 5% alpha and the coefficient number is negative. So it can be said that the family income variable has a negative and significant influence on poverty in Palopo City in 2014-2023. This means that when family income increases, the poverty rate will decrease. This is in line with the third hypothesis and research by Mayasari et al (2018), which explains that family income has a negative effect on poverty. This research is also in line with research by Restu, (2020) which explains that income has a negative effect on poverty. Research by Azizah et al (2018) also states that APBD allocation for family assistance can reduce the existing poverty rate. Apart from that, this research is also in line with research by Raharyanti (2013) which explains that family income has an influence on poverty.

6. Conclusion

Based on the analysis of research results and discussion of the influence of family income, living environment and education on poverty in Palopo City, it can be concluded that:

1. Family income has a significant effect and has a negative relationship with poverty in Palopo City.
2. The environment has no influence on poverty in Palopo City.
3. Education has a significant effect and has a negative relationship on poverty in Palopo City.

Acknowledgement

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