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THE EFFECTS OF UNEMPLOYMENT, EDUCATION, AND INVESTMENT ON POVERTY IN JAVA-BALI

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Abstract

Poverty is a crucial problem faced by almost all countries in the world including Indonesia, many studies show that education and investment are the solutions to poverty while unemployment is the source of poverty. This paper aims to see if there is an effect of education, investment and unemployment on poverty on the islands of Java and Bali. this research uses quantitative methods with Ordinary Last Square (OLS) techniques, the type of data used is panel and the data source used is secondary data obtained from BPS Each province in Java and Bali. the results of this study indicate that poverty can be overcome by education, and opening employment through labor-intensive investment which results in economic growth on the island of Java and Bali. unemployment can increase poverty if the investment is not on target. To balance the investment that continues to increase every year, the education aspect needs to be considered, education will improve the welfare of the community through increased income and decent wages. Investment needs to be balanced with the quality of human resources so that welfare can reach various regions in Java and Bali.

Keywords: Poverty, Unemployment, Investment, Education

INTRODUCTION

Poverty is a macro problem that occurs in every country and Indonesia is no exception. The number of poor people in Indonesia in 2023 amounted to 25.90 million people, although this number decreased from the previous year which amounted to 26.16 million people, this is still a serious problem because it will have an impact on social problems and other problems.

In Java Bali, the number of poor people tends to increase from 2018 to 2022.

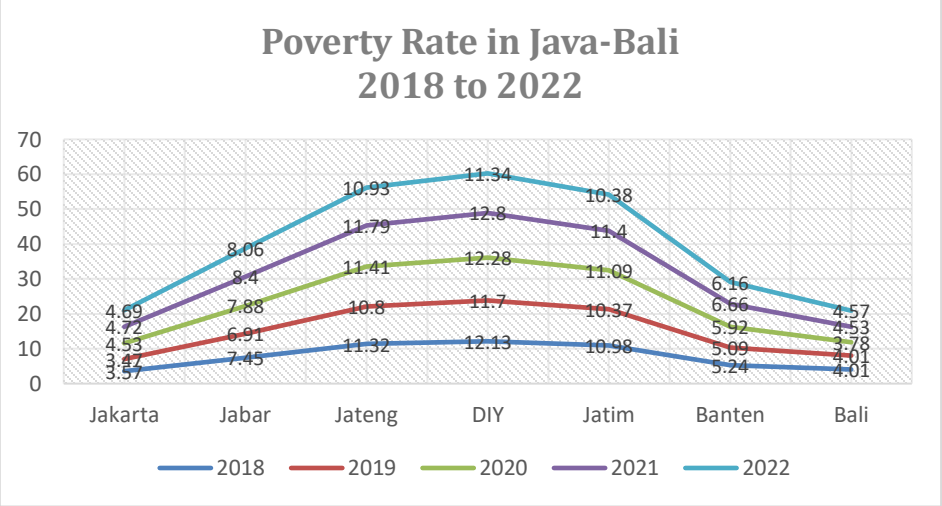


Figure 1
The Level of Poor People in Java Bali Island
Source: BPS Data Processed

The data above shows that a significant increase in the poor population occurred from 2020 to 2021, this was caused by the COVID-19 pandemic situation which resulted in the economic system being paralyzed for more than two years. The increase in poverty in Java Bali is also caused by an increase in population that is not proportional to the increase in employment opportunities. Employment opportunities that are smaller than population growth give birth to unemployment, unemployment in other terms does not have the income to obtain consumption of goods and services so this condition causes a person or group of people unable to fulfil their basic rights to maintain and develop a dignified life which is ultimately referred to as poverty.

Another problem is unemployment, unemployment is one of several macro problems in a country, a high unemployment rate reflects the weak ability of a country to prosper its

people. Java Bali is the largest contributor to unemployment in Indonesia, this is of course proportional to its population density. Figure 2 shows the contribution of unemployment from Java Bali over the last 5 years.

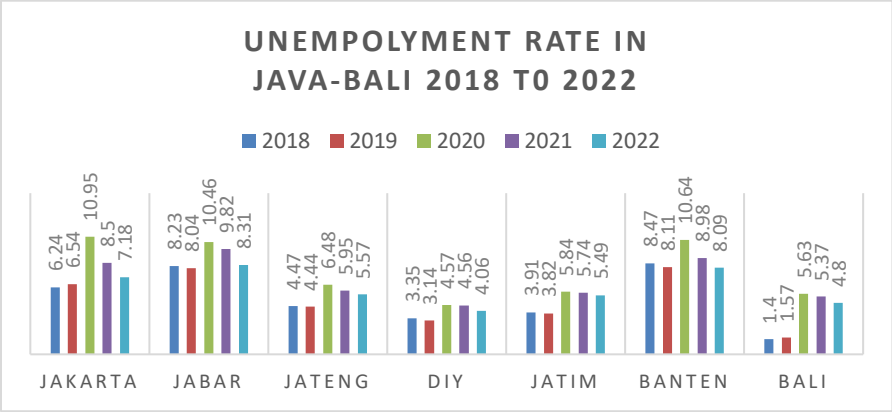


Figure 2
Unemployment Rate in Java Bali Island
Source: BPS Data Processed

Figure 2 explains the percentage of 100% unemployment in Indonesia, the contribution of unemployment in Java Bali Island has decreased by 1.04% over the past 5 years, from 2018 as much as 44.54% to 2022 to 43.5% of the total unemployment in Indonesia (Badan Pusat Statistik, 2022). A significant increase occurred in 2020-2021 where during the pandemic, massive layoffs occurred which caused an increase in unemployment of 8.5% to 9%. Of course, high unemployment rates will lead to social problems such as poverty and crime and will increase the burden on the state.

Education is used as an instrument to reduce poverty in all countries, not least in Indonesia, an in-depth analysis conducted by OEDC countries shows that poverty has a huge impact on the welfare of a nation, in fighting poverty every country in OEDC is carrying out an educational revolution, one of which is through measuring school attendance, compulsory education and promising concessions for the highest graduates (Parachiv, 2017).This is the case with Indonesia, which implements a 9-year compulsory education system. In the table below, Figure 3 explains the average education in Java and Bali for the last 5 years.

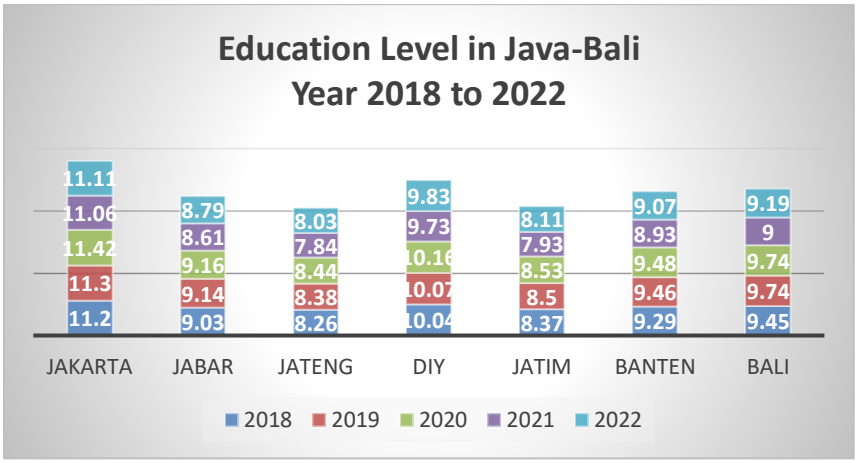


Figure 3
Education Level in Java Bali
Source: BPS Data Processed

Based on BPS data above, the average length of education of the Indonesian people in the last five years is 8.88 years, which is equivalent to junior high school graduates. Of course, this is a challenge for the country to improve the quality of education because it has an impact on the welfare of the community.

Investment is another instrument used by the government in reducing poverty. This applies if all investment policies are directed towards labor-intensive investments that will involve all structures of society. Investment made in various sectors both in the service sector, the procurement sector, and public facilities, of course, is very important for the main purpose of the state, the higher the investment, the greater the benefits provided (Anderson et al., 2006). The following is data on the level of investment in Java and Bali in the last four years.

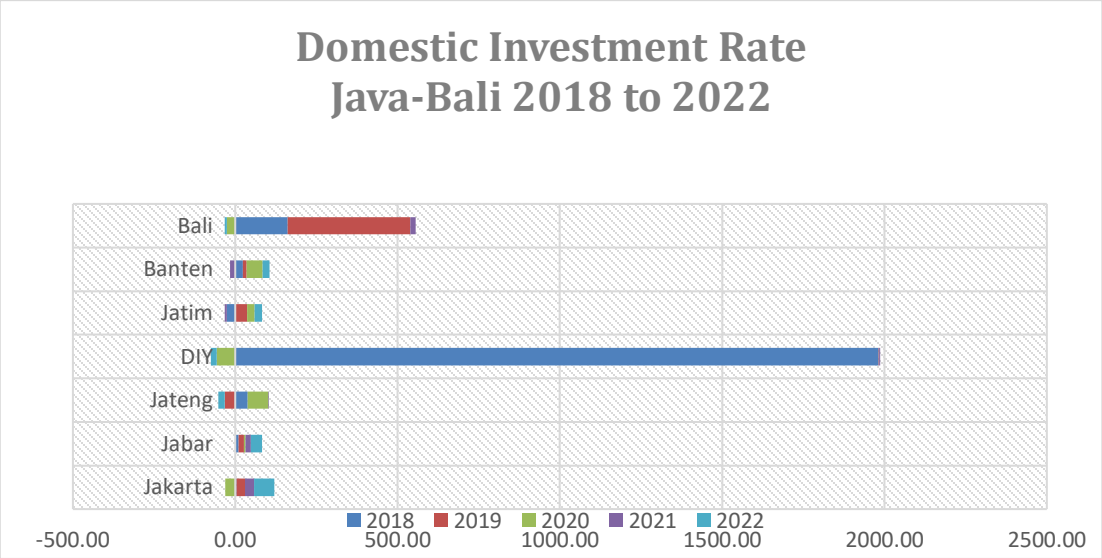


Figure 4.
Domestic Investment Rate in Java and Bali
Source: BPS Data Processed

During the covid 19 period, three provinces experienced a decrease in investment, namely Prov. DKI Jakarta from 26.47% in 2019 decreased to -30.82% in 2020, Prov. Yogyakarta from 2.73% to -57.40% and Bali from 377.35% to -26.52%. Although three provinces experienced a decrease in investment, overall investment in Java Bali Island has increased from 193.24 T in 2018 to 299.41 T in 2022, the largest increase in investment is in 2022 which is 72.8 T. This is due to the transition period and the stretching of every business sector on Java Bali Island. Of course, this high level of investment must have the ability to reduce poverty on the island of Java Bali by absorbing the existing workforce.

REVIEW OF LITERATURE

Poverty

Poverty is a description of the condition of individuals or groups towards the lack of income and lack of ownership or inability to meet the needs of clothing, food and shelter, according to Soejorno Soekanto, poverty is a condition of a person not being able to maintain himself according to the standard of living of the group (Rosana, 2019). Moeketsi (2020) explains that poverty can be caused by the government making the wrong policies without conducting studies on the impacts that will be caused, which can cause the country's ranking to drop (Kali, 2020)

Joe Hasell mentioned that the poorest people in the world are those who are malnourished, do not have access to basic services such as electricity and safe drinking water, have lower access to education, and have poorer health (Hasell et al., 2023)

Paul Spicker revealed that in the conventional representative, poverty is characterized by a lack of resources and inequality that refers to a situation. This conventional view has been challenged, as poverty is broader and more complex than just a condition. According to Paul, poverty is a concept that is born by social relationships or the product of social relationships which consists of 1). Social exclusion, 2). Lack of security, 3) poor gender relations, 4). lack of power. Relational poverty is caused by 1). certain social class factors, 2). dependence between groups and individuals, 3). lack of rights to resources and 4). lack of access to land and finance (Spicker, 2020).

Poverty has a negative effect on the scope of community life. First, domestic violence, and spousal violence against women can be experienced in two types, namely physical violence and sexual violence, but poverty leads to physical violence rather than sexual violence (Eralp & Gokmen, 2023). Second, for children, poverty makes children vulnerable in various aspects, in terms of food children are prone to malnutrition and hunger, in terms of education children are prone to dropping out of school, in terms of family children are prone to parental violence, in terms of social children are prone to become perpetrators of crime (Levin, 2018). Third, on labour mobility. Poverty makes labour mobility lower due to the inability of individuals to cover the costs of mobility from one sector to another (Pratiwi et al., 2020). Fourth, on health, poverty provides the fact that low income has a negative impact on health, where impaired health is the effect of the inability of individuals to solve various economic and social problems due to very low-income sources (Beatty, 2020) and fifthly to crime, poverty and low income have a positive effect on increasing criminal acts, compared to social inequality, rural-to-urban migration contributes to higher criminal acts for economic reasons (Dong et al., 2020).

There are several basic things needed to reduce social inequality including; First, the need needed by the poor is easy access to microfinance, this access to microfinance can be used by the community to start economic development at the family level, this access to microfinance can be provided either by government financial institutions or through

assistance from surrounding neighbors (Oteng-Abayie et al., 2023). Second, financial inclusion policies that continue to be improved at the household level are very important, this concerns the basic needs of the community in terms of health expenditure and income through financial inclusion, in other words, the government must facilitate ease of access to health for the poor so that they can still carry out economic activities without having to be constrained by health (Dogan et al., 2022). Third, policies such as social protection for children and women, providing child allowances and pension funds, and improving public education should be issued (Kali, 2020).

Unemployment

In the view of classical economic theory, unemployment is seen as a sign that the smooth state of the labour force is experiencing a bottleneck in some way. In this classical approach, it is assumed that the labour market is treated the same as in the ideal supply and demand concept (Nelson et al., 2014)

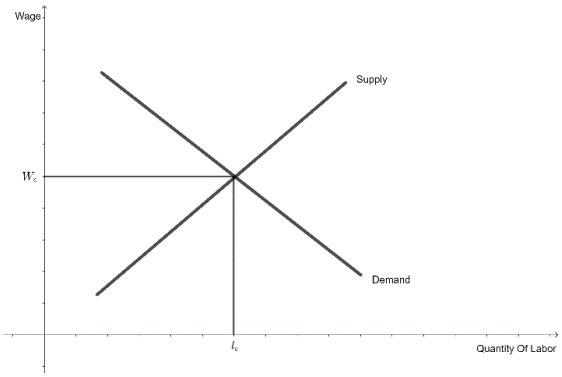


Figure 5
Labour Supply and Demand

The figure above is a model of supply and demand in the labour market. In a well-functioning market, a balanced wage and quantity of labour will be determined by market forces. In addition, the figure above explains that quantity is not measured by the amount of goods, but rather by the amount of labour services, while employers demand labour. This leads to the assumption that every unit of labour service is equal and every worker in this market will get the same wage as exemplified by the We and Le line (Hall, 2011).

According to classical theory, involuntary unemployment can occur if there is a force that can block the great power, the existence of a legal minimum wage is usually referred to as this factor, we can see this in the figure below.

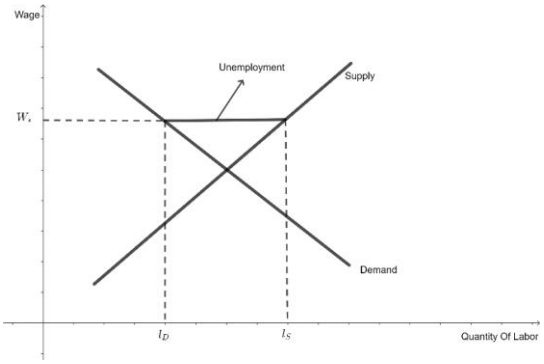


Figure 6
The Effect of Wages on Labour Demand

When employers are required to pay a minimum wage of W* which is above the equilibrium wage, employers will hire fewer employees. At such a wage level the supply of labour is not matched by the demand for labour, meaning that with a minimum wage level, there are still many workers who want it. It should be noted that the minimum wage will only affect part of the workforce, namely those who do not have skills, but unemployment tends to affect people at all prevailing wage levels.

The causes of unemployment according to economists include; 1). Business regulations that cause a reduction in company growth which results in a lack of labour demand, 2). The existence of regulations related to labour, including the provision of health benefits, high competition and restrictions on dismissal by companies coupled with the costs of trade union activities borne by employers, 3). Security policies such as the provision of work accident insurance and unemployment insurance, cause low employment opportunities, thus reducing the interest of job seekers.

Aji (2021) explains that unemployment not only has an impact on poverty but also has an impact on the decline in economic growth and the human development index. (Priambodo, 2021). Yakaterina (2017) reveals that countries with high unemployment rates have the potential to give birth to poor children, but poor children will not occur in countries that have social protection funds for non-working families, family unemployment in

countries with social protection is not permanent so this does not guarantee that children will not be unemployed in the future (Chezen, 2017).

Stefania (2018) revealed that the effect of recession on unemployment affects men more than women, the model used involves labour participation, unemployment and gender equality, this effect is caused by work attachment which is influenced by fiscal and social policies (Albanesi, 2018).

Erna (2018) explained that unemployment is caused by the increasing labour force, the development of modern industrialization means that the ability of industry is lower to absorb labour than the agricultural sector, while the level of wages and labour elasticity can reduce unemployment even though it is not significant (Puspadjuita, 2018).

Aiza Shabbir (2021) found that there are economic variables that can reduce unemployment in the long run, including governance/corporate governance, productive use of the internet, mobile subscriptions for business, broadband subscriptions for business and human resource development. Meanwhile, unemployment will grow again if it is influenced by population growth and activities in the financial sector that are too dominant (Shabbir et al., 2021).

Education

Education is one of the instruments used by the state to improve the quality of human resources (Kurniawan et al., 2023). Education plays a role in reducing poverty through the wage labour channel, education as a signal of ability that will be accepted by employers is an instrument in reducing poverty in Indonesia. Several approaches can be taken to overcome poverty through education (Tilak, 2002).

Human capital approach, this approach considers education as a long-term investment in the formation of human resources, education and training become the main capital that will be directly related to income. Figure 8 shows the relationship between income and education, where when income increases, the demand for education will also (Silva-Laya et al., 2020).

Figure 7
Education Cycle

The basic needs approach, where education is a basic need that can fulfil other basic needs. The indirect effect of education on poverty is the ability to utilize health facilities, housing, and others, including economic behavior. When individuals can utilize more of the available facilities, this will gradually increase the productivity and income of the community.

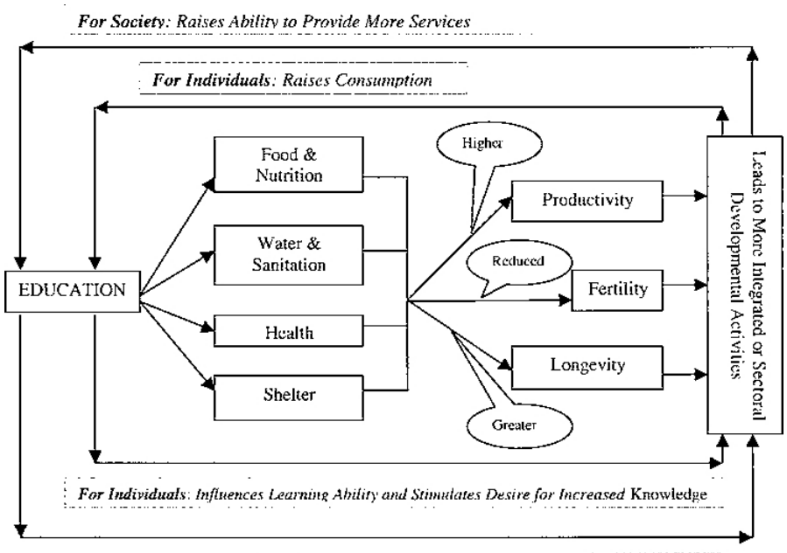


Figure 8
Education as an Important Factor for Basic Needs

The human development approach to human capabilities refers more to the substantive capabilities of individuals in obtaining opportunities, making choices and gaining rights.

Becker (1964) formulated education as an investment that will generate future income. In this context, wage differentials are influenced by individual productivity

differences, which are also influenced by investments in education or training (both terms are used differently here) made by individuals throughout their lives (Cahuc, 2014).

Education can only be a source of future income if wages reflect productivity differentials, when

$$Y'(i) = 1$$

or

$$\frac{d}{dt}\left[\frac{\partial \Omega}{\partial \sigma(t)}\right] = Ah(t)\mathrm{e}^{-\mathrm{rt}}(\mathrm{r} - \theta)$$

This equation shows that the marginal benefit of educational effort increases over time if $t > \theta$ and dicreasing if $t < \theta$. In other words, there is never any interest in educating oneself if the discounting rate r\ is greater than the efficiency of educational effort.

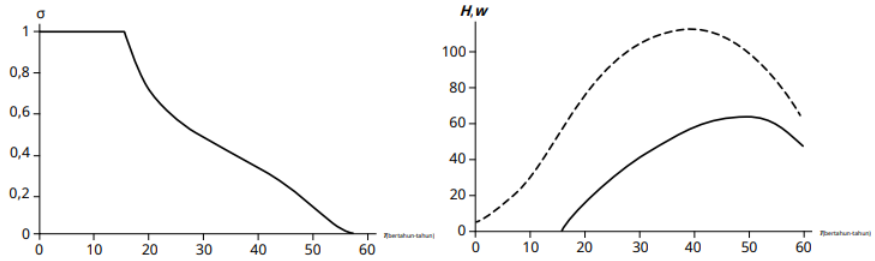


Figure 9
The Law of Motion of Time Dedicated to Education (Graph on the Left), Stock of Human Capital (Dashed Line in the Graph on the Right), and Wage Increase (Solid Line in the Graph on the Right) in the Human Capital Model

Figure 9 displays very accurately the duration of schooling and the evolution of wage income for holders of a bachelor's degree from a university. It shows that individuals who follow a full-time study programme$-\sigma(t) = 1 -$for 16 years, will earn higher wages than high school graduates at the time of first employment, and will reach a peak income by the time they reach 40 years of age and decline until retirement.

Fengqin (2021) conducted an econometric estimation measurement to measure the role of education in alleviating poverty by determining economic, social, and environmental factors. This leads to the conclusion that poverty can be reduced by increasing education. The role of education moves in the form of community involvement in the public and

monetary sectors to produce a relevant policy, besides that, the role of education mediates the foreign trade process in achieving national goals (Liu et al., 2021).

Timoty and Brad (2018) analyzed the effect of education level on wages received based on family segmentation below the poverty line and above the poverty line. Timoty explained that undergraduate graduates who come from families above the poverty line earn 138% of high school graduates, but undergraduate graduates who come from families below the poverty line only earn 71% above high school graduates, this is due to limited access to income for families below the poverty (Bartik, & Hershbein, 2018).

Investment

The progress of the economy can be fulfilled, one of them with the existence of investment, investment is an activity of placing a fund in a certain asset period in the hope of obtaining fund income or increasing investment, investment will have a positive or negative effect depending on the policies taken by the government (Harada, 2015). According to traditional neoclassical theory analysis, foreign investment and non-foreign investment are beneficial to increase higher domestic productivity in the hope of obtaining higher revenues through taxes, improving the balance of payments, creating jobs, developing industries, and also having an impact on technological progress (Costanza et al., 2014).

The investment theory of John M. Keynes and Irving Fisher, says that investment will be made if the value of investment made at this time will generate future income with a margin equal to the opportunity cost of capital. This means that the investment made from the beginning until now has a net value equal to zero (Eklund, 2013). An investment is expected to generate a stream of future cash flows, $C(t)$. Since the investment i, represents expenditure at time 0, it can be expressed as a negative cash flow, Co. The net present value can be written as:

$$NPV = -C_0 + + \int_0^x C(t)\, e^{(g-r)t} dt$$

where g denotes the growth rate and r the opportunity cost of capital (discount rate). As long as the expected return on investment, i, is above the opportunity cost of capital, r, the investment will be worthwhile. The return on investment, i, is equivalent to Keynes' marginal capital efficiency and Fisher's internal rate of return.

In Keynesian theory, investment is not determined by the underlying optimal capital stock. Instead, genuine or radical uncertainty becomes the main positional matter. Keynes believed that humans are "animal spirits" and this, combined with irrational and fluctuating expectations, renders the idea of investment as an adjustment process towards equilibrium futile.

Heba Nassar (2017), links poverty, investment, education, and employment by concentrating on efforts to encourage economic growth from below, the decline in workers' income is allegedly the main cause of poverty in the region and investment is believed to be a driving factor in increasing people's income through expanding employment and social programs (Nassar & Biltagy, 2017). In addition, Abdelhafidh (2020) conducted research on the causal relationship between FDI, carbon dioxide emissions (CO2), and poverty in 98 developing countries for 22 years, the results showed that FDI was able to reduce poverty in almost all developing countries, and FDI could reduce carbon dioxide emissions, which meant that it could improve the economy in developing countries (Dhrifi et al., 2020). Furthermore, John Hine (2019) directed investment in the form of rural road infrastructure as an effort to overcome poverty and economic development, investment in the form of roads in the village has a positive impact on increasing income, reducing poverty, increasing employment, easy access to education and health and facilitating access to transportation in selling agricultural products (Hine et al., 2019).

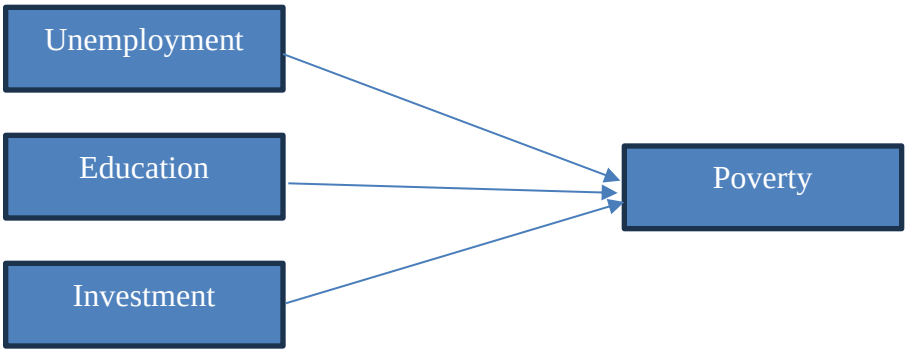
RESEARCH METHOD

The type of research used in this study is quantitative research, this study explains the role of investment, unemployment and education on poverty in Java-Bali Island. The data used is secondary data obtained from BPS, the type of data used is panel data which has a four-year time span from 2019-2022.

This study uses panel data regression analysis with the model

$$Por_{it} = \alpha + \beta_1 UPY_{1t} + \beta_2 LP_{2t} + \beta_3 INV_{3t} + \epsilon_i$$

Where Por (Poverty Rate) as the dependent variable, UPY (Unemployment Rate) and LP (Education Level), and INV (Investment Level), as independent variables. The outline of this research framework is as follows:



To get the best model, it is necessary to analyze the data, data analysis can be done in several stages

First estimate the panel data model, which consists of Common Effect, Fixed Effect, and Random Effect models (Zhang et al., 2023). Second, test the model using the Cow Test, Hausmant Test, and LM Test, the purpose of this test is to find out the best model to use. Third, conduct model feasibility tests including (Unit root test and cointegration test). Third, the classical assumption test consists of the Normality test, Multicollinearity Test, and Heteroscedasticity test.

RESULTS AND DISCUSSION

Cow's Test

This test is conducted to compare the best test between the Common Effect Model and the Fixed Effect Model.

Effects Test	Statistic	d.f.	Prob.
Cross-section F	202.687572	(6,18)	0.0000

From the results of the Cow test, it is known that the prob value is 0.0000 <0.05, this indicates that the FEM model is the chosen model.

Hausman Test

This test is conducted to compare the Fixed Effect Model and the Random Effect Model.

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	91.802692	3	0.0000

From the results of the Hausman Test, it is known that the prob value is 0.0000 < 0.05, this indicates that the FEM model is the chosen model. From the results of the Cow and Hausman tests, it is known that the model to be used in this study is the Fixed Effect Model. Because the two tests carried out produced the same model, the LM test did not need to be carried out.

Model Feasibility Test

Root Test

The unit root test is used to test data that counts little and is more efficient in knowing whether there is a unit root between variables (Arltová,& Fedorová, 2016).

Method	Statistic	Prob.**	Cross-sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-1.76760	0.0386	7	21
Null: Unit root (assumes individual unit root process)				
ADF - Fisher Chi-square	9.55305	0.7941	7	21
PP - Fisher Chi-square	12.1722	0.5925	7	21

From the results of the unit root test above using Levin, Lin & Chu t, it is known that the statistical t value is -1.76760 with prob 0.0386 < 0.05, which means that the data is stationary at the level level.

Cointegration Test

A cointegration test can be done if it fulfills both conditions. Each data passes the unit root test (stationary) and the residual data from the long-run relationship must be stationary at the level level.

Kao Residual Cointegration Test
Series: UPY LP INV GRW POR

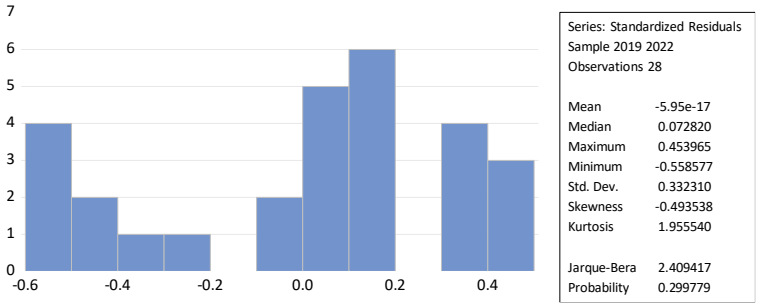
	t-Statistic	Prob.
ADF	-3.547686	0.0002
Residual variance	0.673052	
HAC variance	0.734505	

From the cointegration test results, it is known that the t statistical value is -3.547 with a prob of 0.0002 < 0.05, which means that the data is cointegrated or the data does have a long-term relationship.

Classical Assumption Test

Normality Test

The normality test is used to determine whether the data under study is normally distributed or not, if the data is normally distributed then the data is said to be good (Ghozali, 2016). for the use of long-term data the Jarque-Bera normality test is appropriate because it will be more accurate (Demir, 2022). However, for short data, it is not recommended (Thadewald & Buning, 2007).



Based on the results of the normality test using Jarque-Bera data, we obtain a JB value of 2.4094 with a probability of 0.29977> 0.05, which means that the data passes the normality test. This is reinforced by the results of research by S Kormaz and Y Demir who tested the Shapiro-Wilk, Kolmogorov-Smirnov, Skewness, Kurtosis, Lilliefors, Jargue-Bera, and D'Agostino-Pearson tests in conducting normality tests with a type 1 error of 0.05.

Multicollinearity Test

The multicollinearity test is used to determine whether or not there is a correlation between the independent variables (INV, UPY. LP) and the regression model. The data is said to be good if in the regression model used, there is no relationship between the independent variables. How to find out whether a variable is free from multicollinearity is by looking at VIF (Variance Inflation Factor) and tolerance, if VIF is below 10 and tolerance is smaller than 0.1, the model passes the multicollinearity test and vice versa (Mardiatmoko, 2020).

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	18.06502	89.39020	NA
UPY	0.041822	9.941177	1.135240
LP	0.210199	91.24335	1.041490
INV	4.11E-05	1.208348	1.112477

From the multicollinearity test results above, it can be seen that the coefficient variance of each variable is below 0.1 with a VIF value below < 10 so it can be concluded that the data is free from collinearity problems.

Heteroscedasticity Test

The heteroscedasticity test is carried out to see whether the data is homo or hetero, which means that the data must be ensured not to have similarities between the variants of the residual observations in the regression model. One of the methods that can be used to test heteroscedasticity is Breusch-Pagan-Godfrey, Glejser, rank correlation, park test, etc (Seber & Lee, 2003).

F-statistic	2.020577	Prob. F(3,24)	0.1378
Obs*R-squared	5.645998	Prob. Chi-Square(3)	0.1302
Scaled explained SS	4.931092	Prob. Chi-Square(3)	0.1769

From the results of the heteroscedasticity test, it is known that the Obs R-squared value is 5.6459 and Prob. Chi-square 0.1302 > 0.05, it can be said that the data passes the heteroscedasticity test or is homoscedasticity.

Coefficient of Determination

The coefficient of determination (R-squared) test is carried out to determine how much variation in the dependent variable can be explained by the independent variable.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	18.40671	2.307163	7.978073	0.0000
UPY	0.247374	0.066123	3.741092	0.0015
LP	-1.291607	0.246640	-5.236815	0.0001
INV	0.003100	0.000926	3.346907	0.0036

Root MSE	0.326322	R-squared	0.992320
Mean dependent var	8.964805	Adjusted R-squared	0.988479
S.D. dependent var	3.385376	S.E. of regression	0.406995
Sum squared resid	2.981607	F-statistic	258.4046
Durbin-Watson stat	1.744109	Prob(F-statistic)	0.000000

From the test results above, it is known that the Adjusted R-squared value is 0.992%, so it can be concluded that the UPY, LP, and INV variables can simultaneously explain the POR variable by 92%. The remaining 8% is explained by other variables outside this study.

From the above results; Poverty will grow by 18% if the variables of unemployment, education, and investment are constant. Poverty will grow by 0.247% if the unemployment variable increases by 1%, while Education and Investment are constant. Poverty will decrease by 1.292% if the Education variable increases by 1% while the Unemployment and Investment variables are constant. Poverty will grow by 0.003% if the Investment variable increases by 1% while the Unemployment and Education variables are constant. In addition, simultaneously the variables of unemployment, education, and investment together influence poverty, this is evidenced by the value of F statistics Prob 0.000 < 0.05.

However, the influence of each independent variable on the dependent variable is different, where the Unemployment variable (UPY) has a positive and significant influence on poverty with a prob. value of 0.0015 < 0.05, while the Education variable (LP) has a negative and significant influence on poverty with a prob. value of 0.001 <0.05 and the Investment variable (INV) has a positive and significant influence on poverty with a prob. value of 0.035 < 0.05.

Effect of Unemployment on Poverty

The results of this study show that unemployment has a significant positive effect on poverty in Java Bali Island, where every time unemployment increases by 1% it will increase poverty by 0.247%. This indicates that unemployment has its own impact on poverty, the lack of income or even the absence of income makes the quality of life and health decrease, another impact of unemployment is the birth of new social problems such as higher inequality and a declining level of education and even criminal acts (Saunders, 2002). unemployment in Java Bali results in structural and cultural poverty, structural poverty is born by unemployment due to the inability of human resources to manage existing resources or lack of support from the government in accessing resources. Meanwhile, cultural poverty is born

from unemployment that does not have the ability to manage resources due to an unsupportive social environment.

This research is in line with Oluweyasi's research in Nigeria which says that high unemployment rates have an impact on increasing poverty levels, even though the value of gross domestic product (GDP) has increased, this happens because in every economic productivity does not involve the community so that income distribution is uneven (Adelowokan, 2019).

Emilie et al (2018) revealed that the prominent thing about the impact of unemployment besides poverty is health problems, someone who is unemployed tends to have less health protection, minimal health protection makes a business opportunity to find work will be hampered. On this basis, Europe created a protection called (UI) Unemployment Insurance which aims to offset the impact of unemployment on poverty and health (Renahy et al., 2018).

Poverty caused by unemployment cannot be solved using social assistance or direct cash transfers, but what is needed is new jobs that are suitable for the working age based on regional segments. In Jhon Rawls' welfare theory, the way to overcome poverty is to increase the income of the poorest people first so that they have income equality with the rest (Klaser, 2021)

The Effect of Education on Poverty

The effect of education on poverty in Java-Bali Island is negative. This can be seen from the results of the study which explain that when education increases by 1%, it will reduce poverty by 1.291%. This means that every increase in the level of education / length of education will increase welfare and reduce poverty and vice versa, the lower the level of education, the poverty will increase. People with low education will find it difficult to get a job, especially in the manufacturing sector, this is because almost all available jobs require a minimum of education as the main requirement. In addition, the level of education is a signal for companies in providing wages, the higher the education, the greater the wage that will be received. And this wage difference applies until workers reach retirement age (Cahuc, 2014).

The effect of education in Java and Bali is different in each province, as in Jakarta the high level of education is directly proportional to the minimum poverty rate of 4%,

Central Java with the lowest level of education has a high poverty rate of 10.93%. But what is interesting is Prov. DIY, the education level is the second highest but poverty is at the top of Java and Bali, reaching 11.34%. Poverty in DIY is not caused by educational factors, but rather a strong community culture where DIY people are minimal in consumption and tend to prefer to save, besides that there is a gap between DIY natives and immigrant communities. The majority of migrants make significant expenditures, especially on food products, house rent and lifestyle.

The Role of Investment in Poverty

The role of investment on poverty in Java Bali Island has a positive effect. This is evidenced by the results of the study above which explains that when investment increases by 1%, it will increase poverty by 0.003%, which means that the more investment is made in Java Bali, it does not have an effect on poverty reduction in Java and Bali. This is due to investment that is not on target, the investment needed in reducing poverty is labour-intensive investment while capital-intensive investment only benefits certain groups. This is why investment in Java and Bali does not have a significant negative effect on poverty.

One of the results of research on investment in the island of Java was conducted by Indra & Yudistria (2020) The estimation results show that the operation of the Trans Java Toll Road has no significant impact on increasing GRDP per capita, reducing the open unemployment rate and reducing the poverty rate. The insignificance of the effect of the Trans Java Toll Road is thought to be because the analysis is still being carried out in the medium term, where generally the effect of toll roads is only seen in the long term (Wijaya & Yudhistira, 2020). Amina et al (2023) explained that the growth of the poor has decreased, if the value of investment in various sectors, both foreign investment and domestic investment, has a negative effect on poverty in the short and long term (Ilyas et al., 2023).

Investment does not have a negative effect on poverty because existing investments only involve the upper middle class and only have an impact on their respective lives, not affecting various groups at the bottom, according to Dwiazhari (2020), if the investment has a negative effect on poverty but is not significant, this is due to the unpreparedness of human resources in the region to compete so that investment is more centered on areas that have superior human resource quality (Karisma et al., 2021).

In the concept of investment, of course, there must be the principles of justice and alignment, the alignment in question is alignment with the people. This means that investment is shown to absorb labour and has a good economic impact on the region. However, if investment is accompanied by the dominance of the involvement of machinery and technology in every production, of course, this will not have an influence and will not be a solution to poverty on the island of Java-Bali.

CONCLUSION

The results of this study show that poverty can be overcome by education, employment and labour-intensive investment which results in economic growth in Java Bali Island. Unemployment can increase poverty if the investment is not on target, therefore if the country wants to reduce poverty, the investment that will absorb a lot of labour needs to be prioritized over capital-intensive investment. To balance the investment that continues to increase every year, the education aspect needs to be considered, education will improve people's welfare through increased income and decent wages. Investment needs to be balanced with the quality of human resources so that prosperity can reach various regions in Java and Bali.

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