Research Paper   Open Access

Does Human Development Index (HDI), Investment, and Unemployment Effects on Economic Growth and Poverty Levels? (A Case Study in Bali)

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ABSTRACT: The purpose of this study is to (1) Analyze the effect of the human development index (HDI), investment, and the unemployment rate on economic growth in regencies/cities in Bali Province, (2) Analyze the effects of the human development index (HDI), investment, unemployment rate, and economic growth on the poverty level of districts/cities in Bali Province, and (3) Analyzing the role of economic growth in mediating the effect of the human development index (HDI), investment, and the unemployment rate on the poverty level of districts/cities in Bali Province.This research is a quantitative study using panel data of 45 observations. The type of data used in this research is quantitative data and qualitative data. The data source in this study is secondary data which comes from the Central Statistics Agency (BPS). The method of analysis used in this research is path analysis. Based on the results of the analysis, it shows that (1) Human development index (HDI) and investment have a positive and significant effect on the economic growth of regencies/cities in Bali Province, while the unemployment rate has a negative and significant effect on economic growth in regencies/cities in Bali Province. (2) The human development index (HDI) and investment have a negative and significant effect on the poverty level of districts/cities in Bali Province. The unemployment rate has a positive and significant effect on the poverty level of districts/cities in Bali Province, while economic growth has a negative and significant effect on the poverty levels of districts/cities in Bali Province. (3) Economic growth mediates the effect of the human development index (HDI), investment, and the unemployment rate on the poverty level of districts/cities in Bali Province.
Keywords: *Poverty, Economic Growth, Human Development Index (HDI), Investment, Unemployment Rate*

I.   INTRODUCTION

Economic growth and poverty are closely related. Economic growth is often used as a measure of the economic performance of a region, but high economic growth does not always indicate the high level of welfare of the people. It cannot be denied that economic growth is very meaningful for poverty alleviation and economic development. Economic growth is a necessary condition to reduce poverty. The sufficient condition is that the growth is effective in reducing poverty. This means that economic growth must be evenly distributed in all income groups, including those for the poor (growth with equity). Directly, this means that economic growth needs to be ensured in the sectors where the poor work, namely the agricultural sector or labor-intensive sectors. Indirectly, a sufficiently effective government is needed to distribute the benefits of growth that can be realized through policies such as the capital-intensive service and manufacturing sectors (Siregar & Wahyuniarti, 2008: 27). Poverty definition can be perceived from economics, social, and political aspects. From the economics aspect, poverty is a deprivation in the usable resource to improve welfare. From social aspect, poverty is defined as the lack of social networking and structure to obtain chances in improving productivity. On the poverty cycle, there three things that become the main focus of poverty problem such as low purchase power that affects on the low level of nutrition and health status, which then also causes a low level participation in education. At the end, it also results on the low productivity (Yasa, et. al, 2013)

The quality of human resources can also be a factor in the occurrence of poor people. Human development (human development) is an effort that can be done to create development in other sectors. A high level of human development greatly determines the ability of the population to absorb and manage sources of economic growth, both in relation to technology and to institutions as an important means of achieving economic growth (Brata, 2004).To measure the quality of human capital, the United Nations Development Program (UNDP) introduced the concept of the quality of human capital, which is named the Human Development Index (HDI). The HDI is used by UNDP to measure efforts to achieve a country's human development. Although it cannot measure all dimensions of development, it is able to measure the basic

dimensions of human development which are considered to reflect the status of the population's basic capabilities. This index is formed based on four indicators, namely 1). Life expectancy, 2). Literacy rate, 3). Average length of schooling and 4). Purchasing power. The life expectancy indicator represents the long and healthy life dimension (the health dimension), while the literacy rate indicator and the average length of schooling reflect the output of the knowledge dimension (the education dimension). The indicator of purchasing power (income) is used to measure the dimensions of a decent life (UNDP, 2004).The low human development index (HDI) will result in low work productivity of the population. Low productivity results in low income generation. So that low income causes a high number of poor people. If poverty is related to narrower opportunities, human development is the opposite. The concept of human development is expanding human choice (enlarging choice), especially to meet basic needs such as health, education, and purchasing power. With the opposite relationship, an area with good quality human development ideally has a low percentage of poor people (IPM, 2007). Education and health are essential for realizing a decent life.

One important variable that drives economic growth is investment. Investment is one of the keywords in any discussion about the concept of economy. Investment is an important component in national income and economic growth (Adnan, 2010). Investment is a commitment of funds, directly or indirectly, to one or more assets with the hope of increasing future wealth (Lutfi, 2010). With investment, a country can develop valuable products and services so that they can create jobs in the area. Absorption of labor in employment can increase community income. So that with the increase in people's income, the people themselves will be able to access education and health services, so that investment development is said to be able to reduce the number of people who are below the poverty line (Wati, 2015: 5).Economic development involves production activities (goods and services) in all sectors of the economy. With the existence of production activities, it creates job opportunities and increases people's income which in turn creates or increases demand in the market. The market is developing and it also means that the volume of production activities, employment opportunities and income in the country increases, and so on, then economic growth is created (Tambunan, 2001: 127).

Another factor that also affects the poverty rate is unemployment. Unemployment has limitations that need to be considered because unemployment is very influential in the occurrence of various criminal vulnerability problems and social, political and poverty unrest (Amalia, 2012). Usually those who are categorized as poor (the poor) do not have a job (unemployment) because it is also related to limited jobs. The decline in the level of prosperity and welfare in society is caused by high levels of unemployment.One of the elements that determines the prosperity of a society is the level of income. Community income reaches a maximum if the conditions for full employment can be realized. Unemployment will have the effect of reducing people's income, and it will reduce the level of prosperity that has been achieved. The decreasing level of prosperity will cause another problem, namely poverty (Sadono Sukirno, 2000).

The low rate of growth in the demand for labor in the modern industrial sector and the fast growth rate of urban labor supply originating from the villages have led to the emergence of unemployment (Todaro, 1997). The fast growth rate of the workforce and the relatively slow growth of employment causes the unemployment problem in an area to become more serious. The high unemployment rate is a reflection of the unsuccessful development in a country. Unemployment can affect poverty in various ways (Tambunan, 2001).Sustainable economic growth can increase people's prosperity, because economic growth is an indicator to measure the success of development in a country. Economic growth is a long-term economic problem for a country, because it is the main measure of successful development and the results can be enjoyed by the community down to the lowest strata (Yesika & Karmini, 2015).

The province of Bali which is famous for its tourism destinations is also not free from the problem of population poverty (Bali in Figures, 2017). The problem of poverty in Bali Province is shown by the existence of poor people in Bali Province which is presented in Table 1.

Table 1. Percentage of Poverty Population in Bali Year of 2017-2019

Regency/City	Poverty Population (Percent)		
	2017	**2018**	**2019**
Jembrana	5.38	5.20	4,88
Tabanan	4.92	4.46	4,21
Badung	2.06	1.98	1,78
Gianyar	4.46	4.19	3,88
Klungkung	6.29	5.86	5,4
Bangli	5.23	4.89	4,44
Karangasem	6.55	6.28	6,25
Buleleng	5.74	5.36	5,19
Denpasar	2.27	2.24	2,1

| Bali | 4.25 | 4.01 | 3,79 |

Secondary Data, 2020

Based on Table 1, it shows that the poverty rate in Bali Province from year to year has fluctuated. The average number of poor people is mostly found in Karangasem Regency, which is 6.25 percent. On the other hand, the lowest number of poor people was in Badung Regency, namely 1.78 percent, followed by Denpasar City at 2.10 percent. This shows that there is an unequal distribution of the poor in Bali Province for the period 2017 to 2019. The unequal development in Bali Province is suspected to be one of the causes of poverty that occurs. This is quite reasonable because Badung Regency has a leading sector that is growing rapidly, namely the tourism sector. Meanwhile, Denpasar is the capital of Bali Province.

Based on the above background, the objectives of this study are as follows:

1) To analyze the effect of the human development index (HDI), investment, and the unemployment rate on economic growth in regencies/cities in Bali Province.
2) To analyze the effect of the human development index (HDI), investment, unemployment rate, and economic growth on the poverty level of districts/cities in Bali Province.
3) To analyze the role of economic growth in mediating the effect of the human development index (HDI), investment, and the unemployment rate on the poverty level of districts/cities in Bali Province.

II. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Economic growth is one very important indicator for evaluating development results. Positive growth indicates an increase in the economy and negative growth indicates a decline in economic performance compared to the previous period (Fajrii, et al. 2016).A high level of human development index (HDI) will affect economic growth through the ability of people to be able to contribute more in increasing their productivity and creativity. This is consistent with research conducted by Izzah (2015) which explains that the HDI variable has a positive and significant relationship to economic growth in Riau Province. These results are also in accordance with the research of Firmansyah (2016) which explains that the human development index variable affects the economic growth variable in Bojonegoro Regency.Based on some of the research results above, it is known that the human development index has a significant impact on economic growth, but this does not always occur in the comparison of the human development index to the rate of economic growth in East Java Province. When the human development index has increased, then economic growth has also increased over a period of time, but when the human development index value continues to increase, economic growth decreases in a certain period of the year (Muqqorobin & Ady, 2017).

The human development index (HDI) is a strategic indicator that is widely used to see the efforts and performance of development programs as a whole in an area. In this case, the HDI is considered as an illustration of the results of the development programs that have been carried out several years earlier. Likewise, the progress of development programs in a period can be measured and indicated by the HDI at the beginning and end of that period. HDI is a measure to see the impact of regional development performance which has a very broad dimension, because it shows the quality of the population of an area in terms of life expectancy, intellectuality and a decent standard of living (Sussy Susanti, 2013).Based on Kurniawati's research (2017), the human development index has a negative and significant effect on poverty in the DKI Jakarta Region. The high HDI number means that the level of education of the community is high, when the level of education is high, they will get a decent job so that it is possible to get high income as well. From the high income earned, it will improve the welfare of the community and reduce the level of poverty in the DKI Jakarta Region. The results of this study are also in accordance with Zuhdiyaty's (2017) research, namely HDI has a negative and significant effect on poverty in Indonesia for the last five years.

Investment is a strong link for economic growth and poverty reduction (Ocaya et al, 2012). Based on the results of the analysis conducted by Rai & Suyana (2019), it is found that investment has a positive and significant effect on economic growth in the Regency/City of Bali Province. This means that there is a positive relationship between the investment variable on economic growth (PDRB Per Capita) obtained in this research, investment can be a benchmark for the success and sustainability of future development because it can absorb labor, so that it can open new job opportunities for people who are In turn, it will have an impact on increasing people's income. This is because the greater the investment, the higher the economic growth.Based on the results of research from Diah and Purbadharmaja (2015), the investment variable directly has a negative and significant effect on poverty in Bali Province. The results of this study are in accordance with the results of research put forward by Yolanda and Masinambouw (2017) which state that investment has a significant and significant influence on poverty in Gorontalo by having a negative relationship. The existence of a negative influence between investment on the poverty level is due to an increase in investment from year to year by the Gorontalo provincial government which has a positive impact on reducing the poverty level in Gorontalo. Thus, investment is needed to meet people's needs, in the form of a source of income or income to buy the goods and

services it needs. Investment also generates added value, which is compensation for production services, as well as a source of income or community welfare.

Unemployment will cause various economic and social problems, and result in a lack of income which in turn can cause welfare to decline further. Based on the results of research conducted by Irena and Yoyok (2016), it was found that the unemployment rate had a negative and significant effect on the economic growth of the City of Surabaya during 2003-2012. The results of this study are supported by Samuelson (2004), where the increasing unemployment rate can have an impact on economic growth, this is because it can waste goods and services that can actually be produced by the unemployed. That way unemployment can affect the amount of goods and services produced.The decreasing welfare due to unemployment, can result in the opportunity to be trapped in poverty. This is in accordance with the opinion of Arsyad (2010: 359) which states that there is a very close relationship between the unemployment rate, the extent of poverty, and unequal income distribution. High unemployment rate economically has the potential to reduce opportunities for increasing regional productivity, and socially reflects a greater burden on society. Thus, slowly the community will be pushed to the poor population groups. Permana and Arianti (2012) in their research show that unemployment has a direct and significant impact on poverty. The guideline used as a reference is the opinion of Sukirno (2004) which states that the bad effect of unemployment is to reduce people's income which in turn reduces the level of prosperity achieved by a person. The decline in people's welfare due to unemployment will certainly increase their chances of being trapped in poverty because they have no income.

Economic growth shows the extent to which economic activity can generate additional income or social welfare in a certain period. The economic growth of a country or a region that continues to show improvement, as a supporting sector (BPS, 2013). Diah and Purbadharmaja (2015) in their research entitled "The Effect of Investment and Unemployment on Economic Growth and Poverty in Bali Province" states that directly the economic growth variable has a negative and significant effect on poverty in Bali Province. In line with the results of research conducted by Andri Nurmalita (2018), it is stated that economic growth has a negative and significant effect on the level of poverty in the Special Region of Yogyakarta, meaning that economic growth has spread in every group of poor people so that it effectively reduces poverty levels.The amount of per capita income is often used as a comparison of the level of prosperity in various regions (Norton, 2002). Economic growth will reduce poverty if it is accompanied by a reduction in inequality or income inequality. Poverty reduction can be accelerated if the poor have the opportunity to participate in growth. According to the growth model from Rostow, it states that enlarging the development cake first then distributes it (Sarungu, 2013). Based on this, the regional government first increases economic growth which then distributes or has an impact on regions in the level of welfare and reduces the level of poverty in the regions. This is supported by research by Balisacan et al. (2003).

So, the hypothesis in this study is as follows:

1) Human development index (HDI) and investment have a positive effect on economic growth in regencies/cities in Bali Province.
2) The unemployment rate has a negative effect on the economic growth of regencies/cities in Bali Province.
3) The human development index (HDI) and investment have a negative effect on the poverty level of districts/cities in Bali Province.
4) The unemployment rate has a positive effect on the poverty level of districts/cities in Bali Province, while economic growth has a negative effect on the poverty level of districts/cities in Bali Province.
5) Economic growth mediates the effect of the human development index (HDI), investment, and the unemployment rate on the poverty level of districts/cities in Bali Province.

III.   METHODS

This study uses panel data which is a combination of the 2014-1018 (5 years) time series and a cross section of 9 districts/cities in Bali Province. The total data in this study were 45 observations, using data issued by the Central Bureau of Statistics related to the research objects. The path analysis method is used to determine the direct relationship between the independent variable and the dependent variable and the indirect relationship through the intervening variables. So, a structural equation can be made as follows:

Structural I

$$Y1 = \beta 1 X1 + \beta 2 X2 + \beta 3 X3 + e1 \; \text{...} \; \text{...........} \; (1)$$

Structural II

$$Y2 = \beta 4 X1 + \beta 5 X2 + \beta 6 Y3 + \beta 7 X1 + e2 \; \text{......................................} \; (2)$$

Information:

Y1   = Economic Growth
Y2   = poverty level
X1   = Human Development Index (HDI)
X2   = Investment

X3   = Unemployment Rate
e1, e2   = Standard Error
β1, β2, β3, β4, β5, β6, β7 = Regression coefficient for each variable X

IV.   RESULT AND DISCUSSION

Descriptive analysis in this study was carried out to obtain a description of the calculation of the minimum and maximum values, mean and standard deviation in connection with the research on the effect of the human development index (HDI), investment and unemployment rates on economic growth and poverty levels in regencies/cities in Bali Province. This analysis is based on 5-year panel data from each district/city in Bali Province as follows.

Table 2. Descriptive Statistics Test Results Human Development Index (HDI), Investment, Unemployment Rate, Economic Growth and Poverty Level

	N	Minimum	Maximum	Mean	Std. Deviation
IPM	45	64.01	83.30	72.7300	5.53786
Investment	45	15652	7065808	1.66251	2.138167
Unemployment Rate	45	1.90	37.51	11.1118	9.53793
Economic growth	45	5.06	7.00	6.0740	.47241
Poverty level	45	1.98	7.44	4.9291	1.64160
Valid N (listwise)	45				

Secondary Data, 2020

Table 2 describes that the total number of data (N) is 45 data. The human development index variable has a minimum value of 64.01 and a maximum of 83.30 with an average of 72.7300 and a standard deviation of 5.53786. The investment variable has a minimum value of 15652 and a maximum of 7065808 with an average of 1.66251 and a standard deviation of 2.138167. The unemployment rate variable has a minimum value of 1.90 and a maximum of 37.51 with an average of 11.1118 and a standard deviation of 9,53793. The economic growth variable has a minimum value of 5.06 and a maximum of 7.00 with an average of 6.0740 and a standard deviation of 47241. The poverty rate variable has a minimum value of 1.98 and a maximum value of 7.44 with an average of 4.9291 and a standard deviation of 1.64160.The calculation of the path coefficient was carried out using SPSS 18.0 for Windows software, and the results shown in Table 3 and Table 4 are as follows:

The effect of the human development index (HDI), investment, and the unemployment rate on the economic growth of regencies/cities in Bali Province

The effect of variables of the human development index, investment, and the unemployment rate on economic growth and the effect of the human development index variable, investment, unemployment rate, and economic growth on the poverty rate were tested using the t test.

Table 3. Path Analysis Test Results (Structure 1)

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.061	.072		.843	.404
	HDI	.275	.119	.266	2.305	.026
	Investment	.460	.167	.423	2.753	.009
	Unemployment Rate	-.291	.127	-.291	-2.297	.027

Secondary Data, 2020

Based on the results of the substructure path analysis 1 as presented in Table 3, the following structural equations can be made:

$$Y1 = 0.275 \ X1 + 0.460 \ X2 - 0.291 \ X3$$

The regression coefficient value of the Human Development Index (X1) and investment (X2) variable has a positive coefficient value with a significance of less than 0.05, so the Human Development Index (X1) and investment (X2) have a significant positive effect on economic growth. While the unemployment rate variable is negative with a significance of less than 0.05. This shows that the independent variable, namely the unemployment rate (X3), has a significant negative effect on the economic growth variable (Y). Based on the results of the analysis of the effect of the human development index on economic growth, a significance value of 0.026 was obtained with a regression coefficient value of 0.275 and t value of 2.305. A significance value of

0.026 less than 0.050 indicates that H1 is accepted. This result means that the human development index has a significant positive effect on economic growth. Based on the results of the analysis of the effect of investment on economic growth, a significance value of 0.009 was obtained with a regression coefficient of 0.460 and t value of 2.753. A significance value of 0.009 less than 0.050 indicates that H2 is accepted. This result means that investment has a positive and significant effect on economic growth. Based on the results of the analysis of the effect of the unemployment rate on economic growth, a significance value of 0.027 was obtained with a regression coefficient of -0.291 and t value -2.297. A significance value of 0.047 less than 0.050 indicates that H3 is accepted. This result means that the unemployment rate has a negative and significant effect on economic growth.

The effect of the human development index (HDI), investment, unemployment rate, and economic growth on the poverty level of districts/cities in Bali Province

Table 4 is the results of the path analysis for substructure 2. The results of the table below are also tested with the t test and are the results of the second objective test.

Table 4. Path Analysis Test Results (Structure 2)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	**Std. Error**	**Beta**		
1	(Constant)	-.009	.032		-.268	.790
	IPM	-.225	.057	-.240	-3.981	.000
	Investment	-.439	.081	-.444	-5.403	.000
	Unemployment Rate	.132	.060	.145	2.197	.034
	Economic growth	-.427	.070	-.470	-6.119	.000

Secondary Data, 2020

Based on the results of the path analysis for substructure 2 as presented in Table 4, the following structural equations can be made:

$$Y2 = -0{,}225\ X1 - 0{,}439\ X2 + 0{,}132\ X3 - 0{,}427\ Y1$$

The regression coefficient value of each variable Human Development Index (X1) is negative with a t test significance value of less than 0.050. This shows that the variable namely the Human Development Index (X1) has a significant negative effect on the poverty level variable (Y2). The investment variable (X2) is negative and has a t test significance value of less than 0.050. This means that the investment variable (X2) has a negative and significant effect on the poverty level variable (Y2). The unemployment rate variable (X3) has a t test significance value of less than 0.050. This shows that the unemployment rate variable has a positive and significant effect on the poverty rate variable. Meanwhile, the economic growth variable (Y1) is negative with a t test significance value of less than 0.050. This means that economic growth (Y1) has a negative and significant effect on the poverty level variable (Y2).

Based on the results of the analysis of the effect of the human development index on the level of poverty, the significance value is 0.000 with a regression coefficient value of -0.225. A significance value of 0.000 <0.050 indicates that H4 is accepted. This result means that the human development index has a negative and significant effect on poverty levels. Based on the results of the analysis of the effect of investment on the poverty level, a significance value of 0.000 is obtained with a regression coefficient value -0,439. A significance value of 0.000 <0.05 indicates that H5 is accepted. This result means that investment has a negative and significant effect on poverty levels.

Based on the results of the analysis of the effect of the unemployment rate on the poverty level, a significance value of 0.034 was obtained with a regression coefficient of 0.132. A significance value of 0.034 less than 0.050 indicates that H6 is accepted. This result means that the unemployment rate has a positive and significant effect on the poverty level. Based on the results of the analysis of the effect of economic growth on poverty levels, a significance value of 0.000 is obtained with a regression coefficient of -0.427. A significance value of 0.000 less than 0.050 indicates that H7 is accepted. This result means that economic growth has a negative and significant effect on poverty levels.

The Role of Economic Growth to Mediate the Effect of the Human Development Index (HDI), Investment, and the Unemployment Rate on Poverty Levels

To test the significance of the indirect effect, the Z value of the ab coefficient is calculated by the following formula:

$$S_{b1b7} = \sqrt{b7^2 S_{b1}^2 + b1^2 S_{b7}^2}$$

$$S_{b1b7} = \sqrt{(-0{,}427)^2 (0{,}119)^2 + (0{,}275)^2 (0{,}070)^2}$$

$$S_{b1b7} = 0,054337$$

Information:

Sb1b7 = magnitude of the indirect standard error

Sb1 = standard error coefficient b1

Sb7 = standard error coefficient b7

b1 = path X1 to Y1

b7 = path Y1 to Y2

b1b7 = path X1 to Y1 (b1) with path Y1 to Y2 (b7)

To test the significance of the indirect effect, calculate the Z value of the ab coefficient with the following formula:

$$Z = \frac{b1b7}{Sb1b7}$$

$$Z = \frac{(0,275)(-0,427)}{0,054337}$$

$$Z = -2,1361$$

Therefore, Z value $\leq$ -Z table that is -2.1361 <-1.96. This means that economic growth (Y) is a variable that mediates the human development index (X1) against the poverty level (Y2) or in other words the human development index indirectly affects the level of poverty through economic growth.

To test the significance of the indirect effect, calculate the z value of the ab coefficient with the following formula:

$$Z = \frac{b2b7}{Sb2b7}$$

$$Z = \frac{(0,460)(-0,427)}{0,07824}$$

$$Z = -2,4829$$

Therefore, Z count $\leq$ -Z table that is -2.4829 <-1.96. This means that economic growth (Y1) is a variable that mediates investment (X2) on the level of poverty (Y2) or in other words investment indirectly affects the level of poverty through economic growth.

To test the significance of the indirect effect, the Z value of the ab coefficient is calculated by the following formula:

$$S_{b3b7} = \sqrt{b7^2 S_{b3}^2 + b3^2 S_{b7}^2}$$

$$S_{b3b7} = \sqrt{(-0,427)^2(0,127)^2 + (-0,291)^2(0,070)^2}$$

$$S_{b3b7} = 0,057928$$

Information:

Sb3b7 = the standard error is not direct

Sb3 = standard error coefficient b3

Sb7 = standard error coefficient b7

b3 = path X1 to Y1

b7 = path Y1 to Y2

b3b7 = path X1 to Y1 (b3) with path Y1 to Y2 (b7)

To test the significance of the indirect effect, calculate the z value of the ab coefficient with the following formula:

$$Z = \frac{b3b7}{Sb3b7}$$

$$Z = \frac{(-0,291)(-0,427)}{0,057928}$$

$$Z = 2,1450$$

Therefore, Z value > + Z table, namely 2.1450> 1.96. This means that economic growth (Y1) is a variable that is able to mediate the effect of the unemployment rate (X3) on the poverty level (Y2) or in other words, the unemployment rate has an indirect effect on the poverty level through economic growth.

Determination Coefficient (Adjusted R^2)

The coefficient of determination in essence measures how far the model's ability to explain variations in the dependent variable (Ghozali, 2016). In this statistical calculation, the value of R² used is adjusted R2 because this is an indicator to determine the effect of adding an independent variable to a regression equation. The results of the coefficient of determination test in this study can be seen in the table as follows:

Table 5. Coefficient Determination

Structure	Equation	R Square	Adjusted R Square
1	$Y_1 = 0,275X_1 + 0,460X_2 - 0,291X_3$	0,886	0,877
2	$Y_2 = -0,225X_1 - 0,439X_2 + 0,132X_3 - 0,427Y1$	0,973	0,970

Secondary Data, 2020

Table 5 shows the structural equation 1 (path 1 analysis) the magnitude of the influence of the independent variables on the dependent variable as indicated by the value of determination (Adjusted R Square) of 0.877, which means that 87.7 percent of the variance in economic growth is influenced by the variance of the Human Development Index (X1), investment (X2), and the unemployment rate (X3), while the remaining 12.3 percent is explained by other factors not included in the model.

Whereas in structural equation 2 (path analysis 2) the magnitude of the influence of the independent variables on the dependent variable as indicated by the value of determination (Adjusted R Square) of 0.970 means that 97.0 percent of the variance in the poverty rate is influenced by variations in the Human Development Index (X1). investment (X2), unemployment rate (X3), and economic growth (Y1), while the remaining 3 percent is explained by other factors not included in the model.

Based on the substructure 1 and 2 substructure models, the final path diagram model can be drawn up. Before compiling the final path diagram model, first the standard error values are calculated as follows:

$$Pe_1 = \sqrt{1 - R_1^2} = \sqrt{1 - 0,877} = 0,351$$
$$Pe_2 = \sqrt{1 - R_2^2} = \sqrt{1 - 0,970} = 0,173$$

Based on the calculation of the effect of error (Pei), the result of the effect of error (Pe1) is 0.351 and the effect of error (Pe2) is 0.173. The results of the total coefficient of determination are as follows:

$$
\begin{aligned}
R^2_m \quad &= 1 - (Pe_1)^2 (Pe_2)^2 \\
&= 1 - (0,351)^2 (0,173)^2 \\
&= 1 - (0,123)(0,030) \\
&= 1 - 0,00369 = 0,9963
\end{aligned}
$$

The total determination value of 0.9963 means that 99.63 percent of the variance in the poverty rate is influenced by the variance of the Human Development Index, investment, unemployment, and economic growth, while the remaining 0.3 percent is explained by other factors not included in the model. Based on the results of path analysis 1 and 2 which are summarized in Tables 3 and 4, the results of the path coefficient on this research hypothesis can be described as follows:
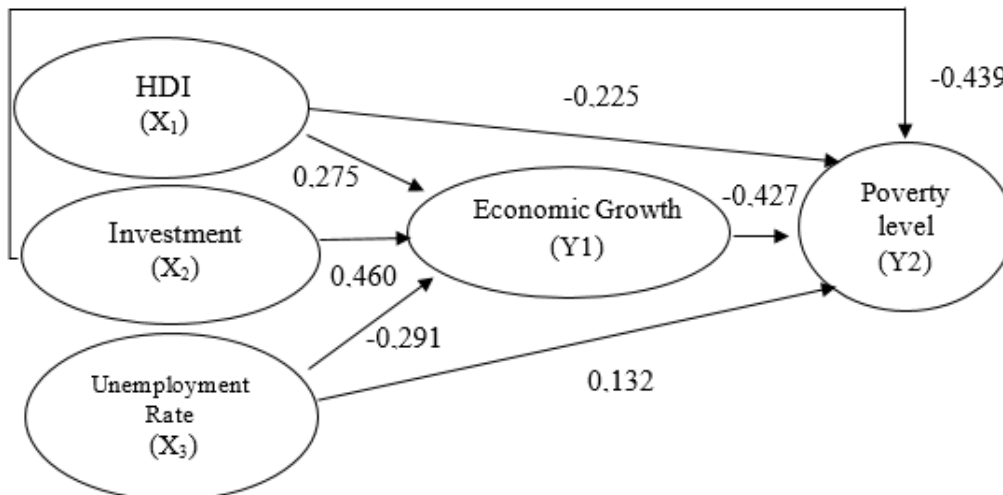

Figure 1. Path Diagram Model

Based on the testing and data analysis that has been done, it can be said that the method used in this study is valid. In this research, which was conducted in 9 (nine) districts / cities in Bali Province, it was found that the human development index (HDI) had a positive and significant effect on economic growth. HDI is a measure to see the impact of regional development performance which has a very broad dimension, because it shows the quality of the population of an area in terms of life expectancy, intellectuality and a decent standard of living (Sussy Susanti, 2013). In line with the results of research conducted by Izzah (2015) which explains that the HDI variable has a positive and significant relationship to economic growth in Riau Province. A high level of human development index (HDI) will affect economic growth through the ability of people to be able to

contribute more in increasing their productivity and creativity. The results in this study indicate that the human development index (HDI) has a negative and significant effect on poverty levels. This is supported by research by Kurniawati (2017) which states that the human development index has a negative and significant effect on poverty in the DKI Jakarta Region. The high HDI number means that the level of education of the community is high, when the level of education is high, they will get a decent job so that it is possible to get high income as well. From the high income earned, it will improve the welfare of the community and reduce the level of poverty in the DKI Jakarta Region. In this case, necessary programs for the community that can increase HDI in order to be able to alleviate poverty.

The investment variable has a positive and significant effect on economic growth. Investment is an asset that is used by a company for the growth of its wealth through the distribution of investment returns (such as interest income, "royalties", dividends, rental income, etc.), for the appreciation of investment value, or for other benefits for the investing company, such as benefits. obtained through trade relations. In line with the results of the analysis conducted by Rai & Suyana (2019), it is found that investment has a positive and significant effect on economic growth in the regencies/cities of Bali Province. This means that there is a positive relationship between the investment variable on economic growth (PDRB Per Capita) obtained in this research, investment can be a benchmark for the success and sustainability of future development because it can absorb labor, so that it can open new job opportunities for people who are In turn, it will have an impact on increasing income.

In this study, the investment variable has a negative and significant effect on poverty levels. Based on the results of research from Diah and Purbadharmaja (2015), the investment variable directly has a negative and significant effect on poverty in Bali Province. This is in line with the research results presented by Yolanda and Masinambouw (2017) which state that investment has a negative and significant effect on poverty in Gorontalo. The existence of a negative influence between investment on the poverty level is due to an increase in investment from year to year by the Gorontalo Provincial government which has a positive impact on reducing the poverty level in Gorontalo. Thus, investment is needed to meet people's needs, in the form of a source of income or income to buy the goods and services it needs. Investment also generates added value, which is compensation for production services, as well as a source of income or community welfare.

Based on the results in this study, the unemployment rate has a negative and significant effect on economic growth. In line with the results of research conducted by Irena and Yoyok (2016), it was found that the unemployment rate had a negative and significant effect on the economic growth of the City of Surabaya during 2003-2012. The results of this study are supported by Samuelson (2004), where the increasing unemployment rate can have an impact on economic growth, this is because it can waste goods and services that can actually be produced by the unemployed. That way unemployment can affect the amount of goods and services produced. Unemployment has limitations that need to be considered because it will greatly affect the vulnerability of various crimes and social, political and poverty unrest.

The unemployment rate variable has a positive and significant effect on the poverty level. This is in line with the results of Permana and Arianti (2012) which in their research show that unemployment has a direct and significant impact on poverty. The guideline used as a reference is the opinion of Sukirno (2004) which states that the bad effect of unemployment is to reduce people's income which in turn reduces the level of prosperity achieved by a person. The decline in people's welfare due to unemployment will certainly increase their chances of being trapped in poverty because they have no income. According to Kuznet (Tulus Tambunan, 2001), growth and poverty have a very strong correlation, because in the early stages of the development process the poverty rate tends to increase and as it approaches the final stage of development the number of poor people gradually decreases. The results in this study are that the economic growth variable has a negative and significant effect on poverty levels. In line with the results of research conducted by Andri Nurmalita (2018), it is stated that economic growth has a negative and significant effect on the level of poverty in the Special Region of Yogyakarta Province, meaning that economic growth has spread in every group of poor people so that it is effective in reducing poverty levels. Siregar (2006) states that economic growth is a necessary condition for poverty reduction. The sufficient condition is that the growth is effective in reducing poverty. This means that this growth should spread across all income groups, including among the poor (growth with equity). Directly, this means that growth needs to be ensured in sectors where the poor work (agriculture or labor-intensive sectors). Indirectly, this means that a sufficiently effective role for the government is needed in redistributing the benefits of growth that might be obtained from modern sectors such as services and manufacturing.

V. CONCLUSION

Based on the results of the research that has been done, the conclusions in this study are:
1) Human development index (HDI) and investment have a positive and significant effect on the economic growth of regencies/cities in Bali Province, while the unemployment rate has a negative and significant effect on economic growth in regencies/cities in Bali Province.

2)   The human development index (HDI) and investment have a negative and significant effect on the poverty level of districts/cities in Bali Province. The unemployment rate has a positive and significant effect on the poverty level of districts/cities in Bali Province, while economic growth has a negative and significant effect on the poverty levels of districts/cities in Bali Province.
3)   Economic growth mediates the effect of the human development index (HDI), investment, and the unemployment rate on the poverty level of districts/cities in Bali Province.

Suggestion

1)   The government must be able to improve the quality of human life by intensifying education and health facilities. Education will be able to improve the quality of human resources which is shown by the increase in knowledge and skills of a person, besides that health is a prerequisite for increasing productivity, where the success of education rests on good health. The government can increase the program of free education facilities, scholarships for orphans and underprivileged people, as well as a campaign for healthy living and free health services so that all the lower classes can be touched.

2)   The government will intensify its strategy to increase investment or attract investors with good infrastructure management, facilities related to investment policies and procedures, and interest rates that are not too high, so that investors are still willing to invest in the area. The government can also introduce investors to other sectors in Bali Province that have not been touched and have the potential to develop if invested. Investment will be a benchmark for the success and sustainability of development in the future because it can absorb labor, so that it can open new job opportunities for the community which in turn will have an impact on increasing people's income. In addition, the government must also limit investment in areas with high growth and spread investment and its supporting infrastructure to areas that rarely get investment in an effort to reduce urbanization as one of the causes of unemployment.

3)   The unemployment rate in this study has an influence on poverty, so that the Government can move the economic sector in order to create employment opportunities in Bali. The government can also create job training programs for people of productive age who do not have work experience or are fresh graduated, so that with the creation of this program, there is the ability to become entrepreneurs through assistance and financial capital to support this.The provision of employment opportunities based on the potentials that each region has must also be increased, because with the expansion of employment opportunities, unemployment will decrease and poverty will also decrease.

4)   In terms of alleviating poverty, the government can implement a family-based social assistance distribution program strategy that aims to fulfill basic rights. There is also a need for an empowerment program for the poor to improve their own standard of living.

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