

ANALYSIS OF FACTORS AFFECTING UNEMPLOYMENT AND POVERTY RATE OF DISTRICT/CITY IN BALI PROVINCE

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ABSTRACT : Unemployment rate is one of the most complex employment problems. Factors which caused the high level of unemployment rate are population growth rate, education level, and wage rate. The unemployment rate is one of the employment problems which in turn will have an impact on socio-economic problems, which is the high of poverty rate. This study uses secondary data which in total are 135 observation point, located in districts/cities in Bali Province among the period 2005-2019. The analysis technique used is path analysis. The results showed that the population growth rate had a negative and insignificant effect on the unemployment rate, the education level had a positive and significant effect on the unemployment rate, while the wage rate had a negative and significant effect on the unemployment rate, the population growth rate has a negative and insignificant effect on the poverty level, the education level and the wage level have a negative and significant effect on the poverty level, while the unemployment rate has a positive and significant effect on the poverty level, and the unemployment rate does not mediate the relationship between population growth rates, education level and unemployment rate to poverty level in regencies/cities in Bali.

Keywords - *population growth rate, education level, wage level, unemployment rate, poverty level*

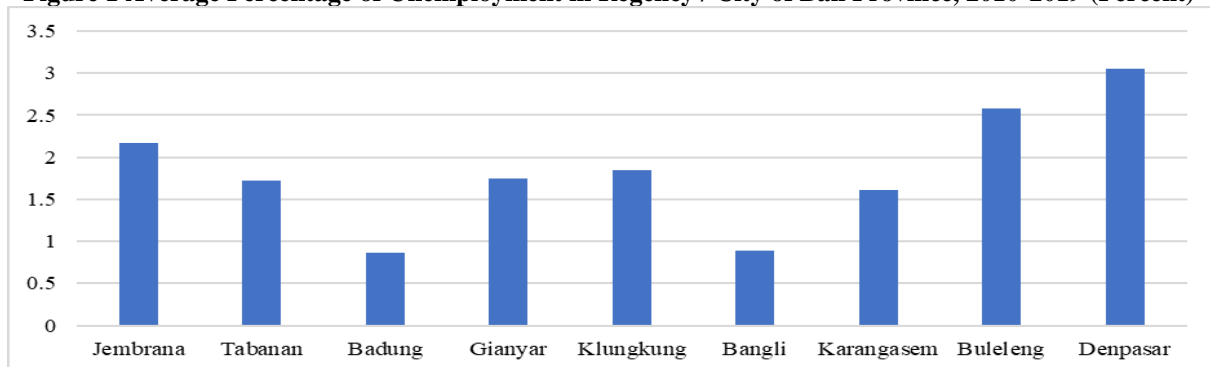
I. INTRODUCTION

Indonesia is one of developing country with a very high population. Based on the 2015-2045 population projection from the 2015 Inter-Census Population Survey, Indonesia's population will reach 269.6 million by 2020. This figure consists of 135.34 million men and 134.27 million women. As many as 66.07 million people are in the non-productive age category (0-14 years), then 185.34 million people are in the productive age group (15-64 years), and 18.2 million people are in the unproductive age group (65+ years) (Central Statistics Agency, 2015). It can be said that Indonesia has entered a phase where the number of productive population is more than the number of non-productive population, with a dependency ratio of 46.47 (below 50.00). This is often referred to as the demographic bonus or demographic dividend. Bali Province is one of the regions with a fairly low dependency ratio in Indonesia with a figure of 45.47 (according to Supas in 2015) along with DI Yogyakarta, East Java, DKI Jakarta, and ten other provinces.

The demographic bonus can be interpreted as an economic benefit due to the increasing amount of savings held by the productive population; this can spur the investment climate and economic growth. However, it should also be emphasized that the demographic bonus will not have a significant impact if the country has minimal investment in human capital (human capital investment). Therefore, the demographic bonus can also turn into a wave of mass unemployment and further add to the burden on the state budget due to the poor (Jati, 2015).

According to Sukirno (1994) unemployment is a condition in which someone belonging to the labour force wants to get a job but they have not been able to get the job. The unemployment rate can provide a good idea of the extent to which people who are ready to work can actually find and start jobs. Unemployment has the potential to create vulnerabilities both to crime and social unrest, poverty and politics. Therefore, it is very important to pay attention to the problem of unemployment. (Chang and Wu, 2012).

Based on Figure 1, the percentage of district/city unemployment in Bali Province fluctuated in 2010 to 2019, where Denpasar as the capital of Bali Province was recorded as the highest contributor to unemployment with an average of 3.05 percent (2010-2019 periods). Denpasar City is always above the regional unemployment rate of Bali Province every year, which is the highest in 2010, which is 6.57 percent and the lowest is in Badung Regency, which is 0.34 percent in 2015 (Central Bureau of Statistics of Bali Province, 2020).

Figure 1 Average Percentage of Unemployment in Regency / City of Bali Province, 2010-2019 (Percent)

Source: Central Bureau of Statistics of Bali Province, 2020

The unemployment rate is influenced by several factors including population growth rate, education level (average length of schooling), and wage level. Population growth which is increasing from year to year results in an imbalance between job growth and an increase in labour; this will lead to an excess supply of labour rather than demand, resulting in the phenomenon of unemployment (Firdhania and Muslihatinningsih, 2017). The population growth rate of regencies or cities in the Province has fluctuated every year, where in the last ten years (2010-2019) Tabanan Regency had the lowest population growth rate of -0.1262 point, while Denpasar City had the highest population growth rate, namely 0.7493 point, with the total workforce in the same year of 522,661 people (Central Bureau of Statistics of Bali Province, 2020).

A high population growth rate will have a high number of workforce as well, this is in line with Baskoro and Kuntoro's (2017) statement, where if the population gets denser, the workforce will also increase, and vice versa if the population is small, the existing workforce There will also be a small number of these areas, where the high population growth rate in urban areas is a result of the presence of immigrants from outside the city to find work in the city.

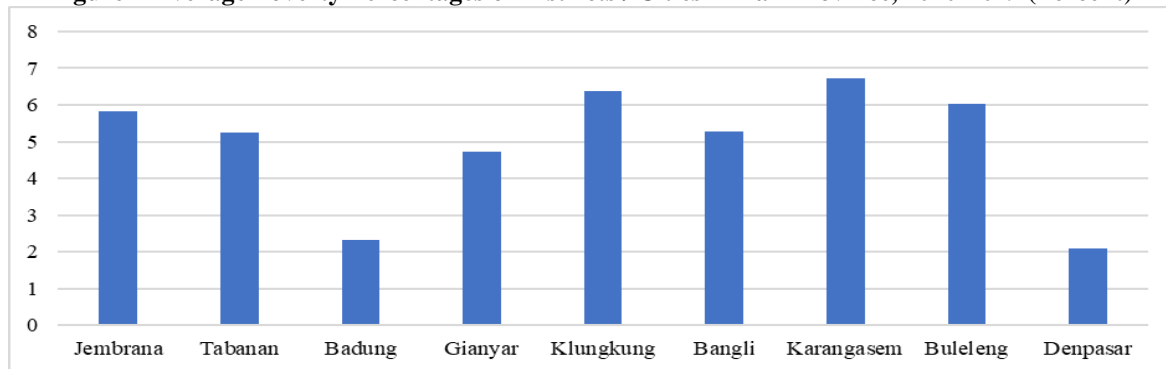
Based on the basic assumption of Human Capital theory, that the higher a person's education level, the higher their job opportunities. Starting from this thought, there are not a few people who think that if they are not accommodated by the available employment opportunities in Indonesia, it means that they have to take a higher school. Then a new assumption arises, in which the higher a person's education level, the less unemployment rate in Indonesia. However, this assumption was refuted by data obtained from the Central Statistics Agency. The high level of education actually increases the number of unemployed in Indonesia (Fitriani, 2018).

The statement above can be seen in Denpasar City, it is recorded that the average length of schooling in the 2010-2019 period was 10.92 years, along with that the average unemployment rate in Denpasar City in the same period was 3.22 percent, the highest in Bali Province. This phenomenon is known as educated unemployment. Educated unemployment is a lack of harmony between education development planning and employment development.

According to Panjawa and Soebagiyo (2014), wages are compensation paid and received by a work unit in the form of an amount of money. Labour wages are very important for both parties. For the producer, wages are a production cost that must be reduced as efficiently as possible. For workers, wages are a source of income for themselves, their families, and a source of public spending. According to Seran (2017), one of the factors causing unemployment is the low level of prevailing wages. Workers are willing to not work (unemployed) because the prevailing wage rate is low, which is called voluntary unemployment.

Minimum wages are a controversial policy area that is important for jobs, income and incentives to acquire new skills. The increase in the minimum wage in each district (and in several provinces) equals the national economic growth rate plus the increase in the national consumer price index the previous year (Dong and Manning, 2017). The objective of the minimum wage, according to the International Labour Organization (ILO), is to receive the necessary social protection wages in terms of the minimum permitted level of wages (Siregar, 2019).

Poverty cannot be separated from the number of unemployed. Providing a job and seeking to absorb labour from a very low working age population are the causes of the increasing number of unemployment rate. Unemployment is a situation where someone belonging to the labour category does not have a job and is not actively looking for work. In addition, unemployment is defined as a situation where people belonging to the workforce want to get a job that has not been able to get it (Prabosiwi, 2016).

Figure 2 Average Poverty Percentages of Districts / Cities in Bali Province, 2010-2019 (Percent)

Source: Central Bureau of Statistics of Bali Province, 2020

In Figure 2 above, the percentage of poor people in districts or cities in Bali Province has fluctuated every year, where the lowest percentage of poor people is in Denpasar City, which is 1.52 percent in 2012, while Jembrana Regency is listed as the area with the largest percentage of poor people, which was 8.11 percent in 2010. The average percentage of poor people in Bali Province in the 2010-2019 periods was 4.45 percent, with the highest percentage in 2010 with 5.67 percent and the lowest with 3.79 percent in 2019. The area with the highest percentage of poor people is Karangasem Regency with an average of 6.75 percent in the 2010-2019 periods. It was followed by Klungkung Regency with an average percentage of poor people of 6.39 percent. Then, it was followed by Buleleng Regency with an average percentage of poor people of 6.07 percent. The area with the lowest average percentage of poor people is in Denpasar City, which was recorded at 2.09 percent in the 2010-2019 periods.

The objectives of this research are: 1) to analyse the effect of population growth rate, education level, and wage rate on unemployment rate, 2) to analyse the effect of population growth rate, education level, wage level, and unemployment rate on poverty level, 3) to know the indirect effect of the duration of population growth rate, education level, and wage level against the level of poverty through the unemployment rate. The benefits of this research are expected to be a reference for research afterwards, can provide information and insight into the unemployment rate and poverty level of districts or cities in Bali Province, as well as contribute ideas to policy makers in making policies and providing solutions to the government, especially to reduce the unemployment rate and district or city with poverty level in Bali.

II. LITERATURE REVIEW AND HYPOTHESIS OF RESERCH

Poverty

According to the Central Statistics Agency (BPS), the concept of poverty is seen as an economic inability to meet basic food and non-food needs as measured in terms of expenditure. According to the Central Statistics Agency (BPS), the concept of poverty is seen as an economic inability to meet basic food and non-food needs as measured in terms of expenditure. So, the poor are people who have an average monthly expenditure per capita below the poverty line.

Poverty Circle Theory

According to Nurkse (in Kuncoro, 2006) the vicious circle of poverty is a series of forces that influence each other in such a way as to create a state where a country will remain poor and will still experience many difficulties to achieve a higher level of development.

Unemployment

One of the problems faced by developing countries including Indonesia is the problem of unemployment. The problem of unemployment is one of the macroeconomic problems that hinders regional development because it will cause other social problems (Yehosua, et al, 2019). According to Yanuar (2009) unemployment is a condition in which the workforce wants to get a job but has not yet got it (in Anonymous, 2019). Unemployment can also be said to be a form of declining economic activity, from technological advances that reduce the use of labor, or as a result of the decline in the development of an industry (Sukirno, 2004).

Based on the theory and results of empirical studies, several hypotheses can be drawn as follows.

- 1) Population growth rate and education level have a positive effect, while the wage rate has a negative effect on the district / municipal unemployment rate in Bali Province.
- 2) The population growth rate and the unemployment rate have a positive effect, while the education level and the wage level have a negative effect on the district / city poverty level in Bali Province.
- 3) Population growth rate, education level, and wage level indirectly affect the poverty level through the district/municipal unemployment rate in Bali Province.

III. METHODOLOGY

This research is quantitative and associative. This associative quantitative approach is used to determine the relationship between two or more variables (Sugiyono, 2015: 128). In this study, associative research was used to determine the effect of population growth rate, education level, and wage rate through unemployment rate on poverty levels in districts / cities in Bali Province for the period 2005-2019.

This study uses secondary data, namely data obtained indirectly through other parties or intermediary media such as documents (Sugiyono, 2014: 193). Secondary data used in this research are population growth rate, average length of schooling, minimum wage, unemployment percentage, and district/city poverty percentage in Bali Province. Secondary data sources in this study were obtained from the Bali Province Central Bureau of Statistics (BPS). This research was conducted in districts or cities in Bali Province, which consisted of eight (8) districts and one (1) city in a period of 15 years, in which from 2005-2019. The method of determining the sample in this study uses saturated samples, namely the sampling technique when all members of the population are used as samples (Sugiyono, 2012: 122).

The analysis technique used for problem solving in this study is to use quantitative analysis techniques with the help of the SPSS program. The analytical method used in this research is path analysis. Path analysis is an extension of multiple linear regression analysis, which is to estimate the causal relationship between tiered variables based on theory (Suyana Utama, 2012: 159).

IV. RESULT AND DISCUSSION

The Effect of Population Growth Rate, Education Level, and Wage Level on Unemployment Rate

Structure 1 testing was conducted to see the effect of population growth rate, education level, and wage rate on district / city unemployment rates in Bali Province which was carried out with SPSS Version 24.0, then the regression results are presented in Table 1.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.521	.487		9.281	.000
	Population Growth Rate	-1.146	1.312	-.056	-.874	.384
	Education Level	.262	.059	.295	4.440	.000
	Wage Rate	-3.716	.323	-.744	-11.511	.000

Secondary Data, 2020

Based on Table 1 above, the population growth rate has a standardized coefficients beta value of -0.056 and a sig value of 0.384 > 0.05, which indicates that the population growth rate has a negative and insignificant effect on the unemployment rate. This means that any increase in the population growth rate of 1 point will not affect the unemployment rate in districts/cities in Bali Province. The results of this study are in line with research conducted by Zulfa (2016) who obtained results where population growth did not have a significant effect on unemployment in Lhokseumawe City. The same thing is stated in Chandra, et al. (2020) that population growth does not have a significant effect on unemployment in Jambi City. The population growth rate which has a negative and insignificant effect (no effect) is because Bali Province is still categorized as an area that has a demographic bonus, this can be explained by the dependency ratio of Bali Province from 2010 to 2019 which has always been below 50.00. Even though they are said to have experienced a demographic bonus, there are still many people who have not been absorbed into employment.

The education level variable has a beta standardized coefficients value of 0.295 and a sig value. 0.000 < 0.05 indicates that the level of education has a positive and significant value on the unemployment rate. This means that when there is an increase in the level of education by one year, the unemployment rate will increase by 29.5 percent, assuming other variables is considered constant. The results of this study are in line with research from Hartanto and Masjkuri (2017) which states that the variable level of education which is proxied by the average length of schooling partially has a positive and significant effect on the number of unemployed in the districts and cities of East Java Province in 2010-2014. The same thing is stated in Prawira's (2018) research that the level of education has a positive and significant effect on the unemployment rate in Indonesia for the period 2011 to 2015. The level of education has a positive and significant effect on the unemployment rate known as educated unemployment, this is because someone with an educational level those

who are tall tend to be more likely to select jobs according to their fields and expertise. On the other hand, those with less education tend to accept any job, so it can be seen that the open unemployment rate from those with junior high school education and below is the smallest among the open unemployment rate at all levels of education.

This is supported by the statement of Ketut Yudiana as Division of Placement, Expansion of Job Opportunities and Transmigration of the Department of Manpower and Energy and Mineral Resources Bali Province (interview, 9 February 2021).

"Many residents are still picky about jobs and assume that it is better to work in the formal sector, for example: civil servants, as well as the lack of interest in entrepreneurship in Balinese society."

The high level of educated unemployment is due to the lack of employment opportunities for fresh graduated people, so that after completing their education they find it difficult to find work in accordance with their fields and knowledge. Furthermore, education causes an increase in unemployment due to the inadequacy of employment opportunities with the education sector completed by the population.

The wage level variable has a standardized coefficients beta of -0.744 and a sig. 0.000<0.05 which indicates that the wage rate has a negative and significant effect on the unemployment rate. This means that every time there is an increase in the wage rate of 1 million rupiah, the unemployment rate will decrease by 74.4 percent, assuming other variables are considered constant. This result is in line with Khotimah's research (2018) which states that the minimum wage with the UMK indicator has a significant effect on a negative relationship with the unemployment rate in DIY in 2009-2015. The same thing is stated in Putra and Murjana Yasa's (2018) research that there is a significant negative effect between regional minimum wages and unemployment in Bali Province in 2007-2016. The increase in the regional minimum wage will encourage the population to be more eager to look for work and work, thus unemployment will decrease because the population has already found a job and enthusiasm for work due to the increased minimum wage. Therefore, residents who are looking for work have an incentive to look for work by looking at the increase in wages, the demand for labour does not affect the annual increase in wages in Bali Province. Where the factors cause unemployment, one of them is the low level of prevailing wages. Workers are willing to not work (unemployed) because the prevailing wage rate is low, which is called voluntary unemployment (Seran, 2017).

To find out the value of e_1 which shows the variance of the unemployment rate variable (Y_1) which is explained by the variable population growth rate (X_1), education level (X_2), and wage level (X_3), it is calculated using the equation:

$$\begin{aligned} e_1 &= \sqrt{1 - R^2} \\ &= \sqrt{1 - 0,506} \\ e_1 &= 0,703 \end{aligned}$$

The standard error of e_1 obtained is 0.703, meaning that 70.3 percent of the variance of the unemployment rate variable (Y_1) is not explained by the population growth rate (X_1), education level (X_2), and wage level (X_3) variables.

The Influence of Population Growth Rate, Education Level, Wage Level, And Unemployment Rate on Poverty Level

Structure 2 testing was carried out to see the effect of population growth rate, education level, wage level, and unemployment rate on the poverty level of districts/cities in Bali Province which was carried out using SPSS Version 24.0, then the regression results are presented in Table 2.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	13.814	.727		19.012	.000
	Population Growth Rate	-.521	1.524	-.017	-.341	.733
	Level of education	-.997	.073	-.751	-13.572	.000
	Wage Rate	-1.135	.531	-.153	-2.140	.034
	Unemployment Rate	.249	.101	.167	2.459	.015

Secondary Data, 2020

Based on Table 2, the population growth rate has a beta standardized coefficients value of -0.017 and a sig. $0.733 > 0.05$, which indicates that the population growth rate has a negative and insignificant effect on the poverty level. This means that any increase in the population growth rate of 1 point will have no effect on the poverty rate in districts/cities in Bali Province. This is in line with the research of Hambarsari and Inggit (2016) which states that population growth does not have a significant effect on poverty levels in East Java. The same thing is stated in the research of Margareni, et al. (2016) that population growth has a negative and insignificant effect or it can be said that it does not affect poverty in Bali Province. Although population growth has increased, there are still factors that cause the poor to decline, one of which is because of the education assistance from the government, eventually many people who have low incomes can send their children to school, thus improving the quality of human resources and improving their welfare (Hendrati and Aprilianti, 2009).

The education level variable has a beta standardized coefficients value of -0.751 and a sig value. $0.000 < 0.05$, indicates that the level of education has a negative and significant effect on the poverty level. This means that an increase in the level of education by 1 year will have an effect on reducing the poverty rate by 75.1 percent, assuming other variables are considered constant. This is in line with research by Margareni, et al (2016) which states that education has a negative and significant effect on poverty. The same thing is stated in Putra and Arka's (2018) research that the level of education has a negative and significant effect on the poverty level. These results indicate that increasing education will reduce poverty rates, where education is a way to save oneself from poverty. A poor person expects a good job and high income, so he must have a high level of education. Education will have an impact in the long run in improving the economic life of the family. To a certain level, education does not only function as a means to the only means of obtaining a job, where creativity and competitiveness is also needed in carrying out their routines. A person who has higher education quality will be able to produce goods and services optimally so that he will get optimal income too. If the income of the population is high, all needs will be met and far from the cycle of poverty (Widyasworo, 2014).

The wage level variable has a standardized coefficients beta of -0.153 and a sig. $0.034 < 0.05$, which indicates that the wage level has a negative and significant effect on the poverty level. This means that an increase in the wage level of 1 million rupiah will have an effect on reducing the poverty rate by 15.3 percent, assuming other variables are considered constant. This is in line with research by Kurniawati, et al. (2017) which states that the minimum wage has a negative and significant impact on poverty in Indonesia in 2006-2014. The same thing is stated in Utami and Masjkuri's (2018) research, that the minimum wage has a negative and significant effect on the level of the number of poor people in 38 districts / cities in East Java Province. The higher the minimum wage, the lower the number of poor people. This result is in accordance with the objective of determining the minimum wage as stated by Kaufman (2000) and in the Minister of Manpower Regulation Number: Per-01 / Men / 1999, as well as the Manpower Law No. 13 of 2003, namely to improve the welfare of workers, so that they are free from poverty. Setting a minimum wage that is close to the MLN (Minimum Living Needs) and above the poverty line because it can reduce the number of poor people.

The unemployment rate variable has a standardized coefficients beta value of 0.167 and a sig value. $0.015 < 0.05$, indicates that the unemployment rate has a positive and significant effect on the poverty level. This means that an increase in the unemployment rate of 1 percent will have an effect on an increase in the poverty rate of 16.7 percent, assuming other variables are considered constant. This is in line with research by Margareni et al. (2016) which states that unemployment has a positive and significant effect on poverty in Bali. The same thing is stated in Putra and Arka's (2018) research that the unemployment rate has a positive and significant effect on the poverty rate in districts or cities in Bali. These results indicate that the increase in unemployment, the more unproductive the population will be, so that the population will not be able to meet their daily needs, the more unfulfilled necessities of life will increase the existing poverty level.

The outbreak of Covid-19 in Indonesia, especially in Bali Province, is not only health problems that arise, but all aspects of life are affected, including the economy. The economy has started to decline since the implementation of activity restrictions. The decline also had an impact on labor dynamics in Bali. The unemployment rate in Bali Province has increased from 1.21 percent in the February 2020 period to 5.63 percent, or an increase of 4.42 percent. This was caused by the Covid-19 pandemic which subsequently resulted in many residents experiencing layoffs because their previous workplaces experienced a decrease in turnover, even some of them closed. In the August 2020 period, the unemployment rate in Denpasar City was recorded at 7.62 percent or the highest in Bali Province, followed by Gianyar Regency with 7.53 percent, and Badung Regency with 6.29 percent. Regions that rely on the tourism sector such as Badung Regency, Gianyar Regency, and Denpasar City are the areas that are most affected by the Covid-19 pandemic.

In line with the increase in unemployment in the Bali, the poverty rate has also experienced the same thing. The poverty rate in the March 2020 period was 3.78 percent, increasing to 4.45 percent. Based on the classification of the region, the percentage of poor people in urban areas has increased, from 3.33 percent in March 2020 to 4.04 percent in September 2020. The same thing also happened in rural areas, it was noted that

the percentage of poor people had increased from 4.78 percent in March 2020 to 5.40 percent in September 2020. As for what resulted in this increase in poverty, among others, the tourism sector was hit, where the province of Bali has an economy. relies on the tourism sector which was very hard hit by the Covid-19 outbreak, many workers were affected by layoffs which caused an increase in unemployment and then made it increasingly difficult for the lower class to get income. Furthermore, the farmer exchange rate also affects the level of poverty, especially for people living in rural areas, the farmer exchange rate in September 2020 was recorded at 93.60, apart from being below 100, this value was also lower than the condition in March 2020 which was recorded at 97.10.

To find out the value of e_2 which indicates the variance of the variable poverty rate (Y2) is not explained by the variable population growth rate (X1), education level (X2), and wage level (X3), and unemployment rate (Y1), it is calculated using the equation:

$$\begin{aligned} e_2 &= \sqrt{1 - R^2} \\ &= \sqrt{1 - 0,704} \\ e_2 &= 0,544 \end{aligned}$$

The standard error of e_2 obtained is 0.544, which means that 54.4 percent of the variance in the poverty rate variable (Y2) is not explained by the population growth rate (X1), education level (X2), and wage level (X3), and unemployment (Y1).

To check the validity of the model, there are indicators to carry out checks, namely the coefficient of determination of the total results as follows.

$$\begin{aligned} R^2_m &= 1 - (Pe_1)^2 - (Pe_2)^2 \\ &= 1 - (0,703)^2 - (0,544)^2 \\ R^2_m &= 0,854 \end{aligned}$$

Based on the calculation results, the total coefficient of determination is 0.854, it is found that the diversity of data that can be explained by the model is 85.4 percent, meaning that 85.4 percent of the population growth rate, education level, wage level, and unemployment rate variables can explain variations -the decrease) in the poverty level variable, while the remaining 14.6 percent is explained by other variables not included in the model.

Indirect Effect of Population Growth Rate on Poverty Level through the Unemployment Rate in districts / cities in Bali Province.

To test the effect of the unemployment rate as a variable that mediates the relationship between the population growth rate and the poverty level of districts / cities in Bali Province, it is calculated by the following equation:

$$\begin{aligned} S_{\beta_1\beta_7} &= \sqrt{\beta_7^2 S_{\beta_1}^2 + \beta_1^2 S_{\beta_7}^2} \\ &= \sqrt{(0,167)^2 (1,312)^2 + (-0,056)^2 (0,101)^2} \\ S_{\beta_1\beta_7} &= 0,219 \end{aligned}$$

Annotations:

S_{β_1} = standard error regression coefficient of X_1 variable to Y_1

S_{β_7} = standard error regression coefficient of Y_1 variable to Y_2

To test the significance of the indirect effect, the z value of the $\beta_1\beta_7$ coefficient is used with the following formula.

$$\begin{aligned} z &= \frac{\beta_1\beta_7}{S_{\beta_1\beta_7}} \\ &= \frac{(-0,056)(0,167)}{0,219} \\ z &= -0,04 \end{aligned}$$

Annotations:

β_1 = standard error regression coefficient of X_1 variable to Y_1

β_7 = standard error regression coefficient of Y_1 variable to Y_2

Because z count is $-0.04 < 1.96$, H_1 is rejected and H_0 is accepted, meaning that the unemployment rate is not a mediating variable for the effect of population growth on poverty levels in districts / cities of Bali Province, or in other words, population growth rates have no effect. indirectly to the level of poverty through the unemployment rate in districts or cities in Bali Province.

The indirect effect of the level of education on the poverty rate through the unemployment rate in districts / cities in Bali province.

To examine the effect of the unemployment rate as a variable that mediates the relationship between the level of education and the poverty level of districts / cities in Bali Province, it is calculated by the following equation:

$$S_{\beta_2\beta_7} = \sqrt{\beta_7^2 S_{\beta_2}^2 + \beta_2^2 S_{\beta_7}^2}$$

$$= \sqrt{(0,167)^2(0,059)^2 + (0,295)^2(0,101)^2}$$

$$S_{\beta_2\beta_7} = 0,031$$

Annotations:

S_{β_1} = standard error regression coefficient of X_2 variable to Y_1

S_{β_7} = standard error regression coefficient of Y_1 variable to Y_2

To test the significance of the indirect effect, use the z value of the $\beta_2\beta_7$ coefficient with the following formula.

$$z = \frac{\beta_2\beta_7}{S_{\beta_2}S_{\beta_7}}$$

$$= \frac{(0,295)(0,167)}{0,031}$$

$$z = 1,59$$

Annotations:

β_2 = regression coefficient of the influence of variable X_2 to Y_1

β_7 = regression coefficient of the influence of variable Y_1 to Y_2

Because z count is $1.59 < 1.96$ then H_1 is rejected and H_0 is accepted, meaning that the unemployment rate is not a mediating variable for the effect of education level on poverty levels in districts / cities of Bali Province, or in other words, education level has no indirect effect. It is against the level of poverty through the unemployment rate in districts / cities in Bali Province.

Indirect Effect of Wage Rates on Poverty Levels through the Unemployment Rate in districts / cities in Bali Province.

To test the effect of the unemployment rate as a variable that mediates the relationship between the wage level and the poverty level of districts / cities in Bali Province, it is calculated by the following equation:

$$S_{\beta_3\beta_7} = \sqrt{\beta_7^2 S_{\beta_3}^2 + \beta_3^2 S_{\beta_7}^2}$$

$$= \sqrt{(0,167)^2(0,323)^2 + (-0,744)^2(0,101)^2}$$

$$S_{\beta_3\beta_7} = 0,093$$

Annotations:

S_{β_3} = standard error regression coefficient of X_3 variable to Y_1

S_{β_7} = standard error regression coefficient of Y_1 variable to Y_2

To test the significance of the indirect effect, use the z value of the $\beta_3\beta_7$ coefficient with the following formula.

$$z = \frac{\beta_3\beta_7}{S_{\beta_3}S_{\beta_7}}$$

$$= \frac{(-0,744)(0,167)}{0,093}$$

$$z = -1,34$$

Annotations:

β_3 = regression coefficient of the influence of variable X_3 to Y_1

β_7 = regression coefficient of the influence of variable Y_1 to Y_2

Because z count is $-1.34 < 1.96$ then H_1 is rejected and H_0 is accepted, meaning that the unemployment rate is not a mediating variable for the effect of the wage level on the poverty level in the regencies or cities of Bali Province, or in other words, the wage level does not have an indirect effect. It is going directly to the level of poverty through the unemployment rate in districts or cities in Bali.

V. CONCLUSION

The conclusions in this study are: 1) the population growth rate has a negative and insignificant effect on the unemployment rate, the education level has a positive and significant effect on the unemployment rate, while the wage rate has a negative and significant effect on the unemployment rate in districts/cities in Bali Province, 2) the population growth rate has a negative and insignificant effect on the poverty level, the education level and the wage level have a negative and significant effect on the poverty level, while the unemployment rate has a positive and significant effect on the poverty level in districts/cities in Bali Province,

and 3) population growth rate, education level, and wage level do not have an indirect effect through the unemployment rate on the poverty level in districts/cities in Bali Province.

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