

Determinant Inequality of Income Distribution in East Nusa Tenggara Province 2017-2020

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ABSTRACT

East Nusa Tenggara is a province rich in natural resources, but the wealth of natural resources is not matched by qualified human resources to manage them. So that the income distribution of East Nusa Tenggara Province is uneven. This research aims to analyze the inequality of income distribution in East Nusa Tenggara Province in 2017-2020 using six independent variables, namely the Human Development Index, Construction Expensive Index, Build Village Index, Ratio of Regional Original Income, Labor Force, and Open Unemployment Rate. The data source comes from the Central Bureau of Statistics East Nusa Tenggara Province. This research uses panel data regression method. The model chosen is the Fixed Effects Model (FEM), from this model it is known that the Build Village Index, Labor Force, and Open Unemployment Rate have a significant effect on inequality of income distribution in East Nusa Tenggara Province in 2017-2020 with a negative coefficient direction.

Keyword: Inequality of Income Distribution; Human Development Index; Construction Expensive Index; Build Village Index; Ratio of Regional Original Income; Labor Force; Open Unemployment Rate.

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INTRODUCTION

East Nusa Tenggara Province has a variety of superior natural potential compared to other regions in Indonesia, this can be seen from various kinds of natural resources. The potential of a giant sea area is one of the natural resources that have a comparative advantage and competitive advantage for the province of East Nusa Tenggara which is one of the drivers of the regional economic growth. The natural situation is still beautiful to hold a lot of wealth that invites many tourists from various parts of the world. So this condition can certainly achieve regional economic assets. On the other hand, it does not rule out the possibility that the province of East Nusa Tenggara is a province that has many disadvantaged areas. This is because of the uneven economic development, as a result, there is an imbalance in the income distribution between regions and poverty which is a problem of development policies (Todaro & Smith, 2012).

Income inequality is a condition where the income distribution received by the community is uneven (Sarkodie, & Adams, 2020). Income inequality can occur between layers of society, in urban areas and rural areas, as well as between regions which include provinces and between regions (Heryanah, 2017). The impact that occurs with the inequality of the income distribution is, many areas that are still lagging behind the development, the nursing strategic and fast-growing areas, the border and remote areas are still underdeveloped, and the development gap between cities and villages (Maslikhina, 2016). The impact of this imbalance makes some regions feel treated unfairly. The widening income gap has created various problems such as increasing unemployment, lack of health and education facilities, housing, basic needs, a sense of security and others. In addition, other impacts that arise, namely, the ability of a region to encourage the development process also vary (Hidayat, 2014).

We can see from (**Figure 1.**), from 2017 to 2019 the Province of East Nusa Tenggara experienced an imbalance in the stagnant income distribution, which is in the Williamson Index number 0.66 means based on the provisions of the Williamson Index Income Inequality the number is close to 1 which means the inequality of the distribution of income between regions which is a quite high or uneven distribution of climbing, whereas if the Williamson Index number is approaching 0, it means that the inequality of the regional income distribution is low or income distribution occurs. Furthermore, in 2020 the Williamson index number dropped to 0.63, even though the number dropped but was still classified as the inequality of high-income distribution because the number was closer to 1 than approaching 0 in accordance with the provisions of the Inequality of the Williamson Index income distribution.

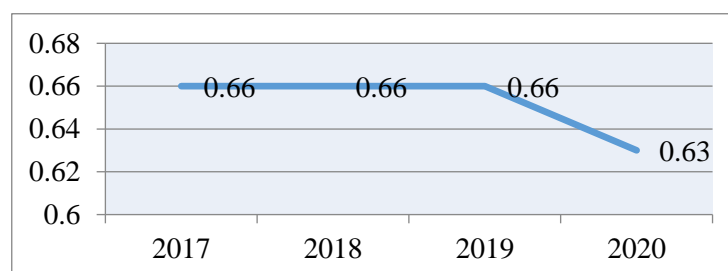


Figure 1. The Williamson Index of East Nusa Tenggara Province in 2017-2020
Source: BPS East Nusa Tenggara Province, Data Processed.

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In 2017-2019 Economic Growth in East Nusa Tenggara Province was stagnant. This is because in this province there is nothing that encourages economic growth (Fajri, 2016). In addition, from the end of 2019 to early 2022 people in East Nusa Tenggara Province and even people around the world felt the real impact of the *Covid-19 virus* which was very detrimental and damaged the achievements of world economic growth targets. Nationally, economic growth in East Nusa Tenggara Province experienced a slowdown or stagnation, this was due to declining export-import activities. The high disparity between regions in East Nusa Tenggara Province causes large population disparities and makes economic growth not optimal (Cahyono et al, 2017)

The condition of slowing economic growth is very closely related to the welfare of the community, because the welfare of the community can be improved through sustainable economic development (Benjamin et al, 2017). Furthermore, economic development must be more equitable and without causing the imbalance of regional development, especially differences in income, as well as able to reduce the number of poor people (Sjafrizal, 2012).. Development inequality is caused by differences in the content of natural resources and differences in demographic conditions in each region. The problem of inequality that occurs between high-income community groups and low income community groups has become a common problem that often occurs in developing countries (Sukirno, 2012)

METHOD

To estimate the direction and magnitude of the Human Development Index, the Construction Expensive Index, the Build Village Index, the Ratio of Regional Original Income, the Labor Force, and Open Unemployment Rate to the Inequality of Income Distribution in East Nusa Tenggara Province in 2017-2020, this research uses Panel Data Regression stated in the econometric equation as follows:

$$INEQ_{it} = \beta_0 + \beta_1 IPM_{it} + \beta_2 IKK_{it} + \beta_3 IDM_{it} + \beta_4 RPAD_{it} + \beta_5 AK_{it} + \beta_6 TPT_{it} + \epsilon_{it} \dots \dots \dots (1)$$

Where:

- INEQ* : Inequality of Income Distribution (Williamson Index Number)
- IPM* : Human Development Index (Index Number)
- IKK* : Construction Expensive Index (Index Number)
- IDM* : Build Village Index (Index Number)
- RPAD* : Ratio of Regional Original Income (Percent)
- AK* : Labor Force (Person)
- TPT* : Open Unemployment Rate (Percent)
- β_0 : Constant
- $\beta_1 \dots \beta_6$: Independent variable regression coefficient
- i* : cross section (Regency/City in East Nusa Tenggara Province)
- t* : time series (Period 2017 - 2020)
- ϵ : error term (error factor)

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The stages of estimation of the panel data regression model include the Common Effects Model (CEM) approach, Fixed Effects Model (FEM), and Random Effects Model (REM); The selection of the best estimator model with the Chow Test and Hausman Test; Test the kindness of the model in the selected estimator model; and the validity of the effect on the selected estimator model.

The type of data used in this study is secondary data. This study uses panel data, which is a combination of cross-section data or cross-data and time series data. Cross-section data here is used to see the difference between spaces, as many as 22 districts/cities in East Nusa Tenggara Province, while time series data is used to see changes for a period of four years from 2017-2020. Secondary data used in this study were obtained from the official website of the Indonesian Central Statistics Agency (BPS).

Operational Definition of Variables

Inequality of Income Distribution (INEQ)

Inequality of income distribution is a condition where inequality occurs in the distribution of income among high-income people and among low-income people (Amri, 2017). Data on the distribution of revenue distribution used in this study is data from the Williamson index number in all regencies/cities of East Nusa Tenggara Province in 2017-2020 which is measured using index number units.

Human Development Index (IPM)

The human development index is an index that measures and explains how society can access development performance results from the government (Hidayat et al, 2018). The human development index can be calculated through several aspects, namely the achievement of a long and healthy life which represents the health sector; literacy rate, school enrollment, and average length of schooling measure development performance in the education sector; and the purchasing power of the people for a number of basic needs as seen from the average amount of spending per capita as an income approach (Hartini, 2017). The human development index data used in this study is data from human development index numbers in all Regencies/Cities of East Nusa Tenggara Provinces in 2017-2020 which are measured using index numbers.

Construction Expensive Index (IKK)

The construction expensive index is an index that measures and explains the level of geographic difficulty of an area (BPS, 2014). The construction expensive index uses several concepts for the process of data collection and calculations, these concepts include the concept of the price of construction goods including rental prices for heavy equipment, wholesalers, construction activities, the level of construction costs, and weighing charts. The more difficult the location and geographical conditions of an area, the higher the price level in that area, meaning that the construction cost index in that area will be higher (BPS, 2008). The human development index data used in this study is data from the construction cost index in all Regencies/Cities of East Nusa Tenggara Province in 2017-2020 which is measured using index numbers.

Build Village Index (IDM)

The build village index is an index that measures and explains the level of welfare of rural communities. The build village index is used to strengthen the achievement of village development goals and efforts to improve the quality of life of village communities which

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will later determine development policies in an area. The developing village index data used in this study is data from the build village index numbers in all Regencies/Cities of East Nusa Tenggara Province in 2017-2020 which are measured using index number units.

Ratio of Regional Original Income (RPAD)

The regional original income ratio is a ratio that describes the ability of the Regional Government to realize the regional original income that has been planned previously (Rachmawatie, 2021). Own regional income includes revenues obtained from various sectors of regional taxes, regional levies, results of regionally owned companies, results of separated regional wealth management, and other legitimate regional original revenues that function for equitable. The regional original income ratio data used in this study is data derived from regional original income figures in all Regencies/Cities of East Nusa Tenggara and West Nusa Tenggara Provinces divided by total income in East Nusa Tenggara Province in 2017-2020 which is measured using units percent.

Labor Force (AK)

The labor force is the total population entering working age (15 years and over) which is grouped into 2 groups, namely those who have jobs and those who do not have jobs or are looking for work (Majid et al, 2021). The labor force data used in this study is data from labor force figures in all Regencies/Cities of East Nusa Tenggara Province in 2017-2020 which are measured using a person unit.

Open Unemployment Rate (TPT)

The open unemployment rate is the percentage of the number of unemployed to the total labor force in an area (Ningsih & Setyowati, 2022). According to (Mankiw et al, 2014) unemployment is a macroeconomic problem that directly affects humans and can be classified as a fairly serious problem. Meanwhile, according to (Amri, K., & Nazamuddin, 2018) unemployment is someone who stops working temporarily or is looking for work. The open unemployment rate data used in this study is data from open unemployment rates in all Regencies/Cities of East Nusa Tenggara Province in 2017-2020 which is measured in percent unit.

RESULT AND DISCUSSION

Table 1. Panel Data Regression Results

Variables	Regression Coefficient		
	CEM	FEM	REM
C	0.799491	2.023936	0.799491
IPM	0.001082	0.003814	0.001082
IKK	-0.000119	0.000189	-0.000119
IDM	-0.147439	-0.116358	-0.147439
RPAD	0.014636	0.001742	0.014636
log(AK)	-0.010164	-0.134459	-0.010164
TPT	-0.003237	-0.004847	-0.003237
R^2	0.282735	0.836788	0.282735
Adjusted. R^2	0.205885	0.718913	0.205885
Statistic F	3.679054	7.098933	3.679054
Prob. Statistic F	0.003765	0.000000	0.003765
Model Selection Test			

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-
- (1) Chow
 Cross- Section $F(20.36) = 6.110441$; Prob. $F(20.36) = 0.0000$
- (2) Hausman
 Cross-Section random $\chi^2(6) = 122.208823$; Prob. $\chi^2 = 0.0000$
-

Source: Processed data

A. Test of Estimated Model Selection
1. Chow Test

The Chow test is used to determine the Common Effects Model (CEM) or Fixed Effects Model (FEM) estimated model. H_0 Chow test: the estimated model is CEM, and the H_A of the estimated model is FEM. H_0 is accepted if the statistical probability value $F > \alpha$; H_0 is rejected if the statistical probability value $F \leq \alpha$. Based on **Table 1**, it can be seen that the probability value of the F statistic is 0.0000 (< 0.01), so H_0 is rejected. In conclusion, the estimated model is FEM.

2. Hausman Test

The Hausman test is used to determine the Fixed Effects Model (FEM) or Random Effects Model (REM) estimated model. H_0 Hausman test: the estimated model is REM, and H_A the of the estimated model is FEM. H_0 is accepted if the statistical probability value is $\chi^2 > \alpha$; H_0 is rejected if the statistical probability value is $\chi^2 \leq \alpha$. From **Table 1**, it can be seen that the statistical probability value χ^2 sebesar 0.0000 (< 0.01), so H_0 is rejected. In conclusion, the estimated model is FEM. Based on the estimated model selection test that has been carried out, the results obtained are the Fixed Effects Model (FEM) which was selected as the best estimated model. Following are the complete estimation results of the FEM model presented in **Table 2**.

Table 2. Fixed Effects Model (FEM) Estimation Model

$$\begin{aligned} \overline{INEQ}_{it} = & 2.023936 + 0.003814IPM_{it} + 0.000189IKK_{it} - 0.116358 IDM_{it} + \\ & \quad \quad \quad (0.2756) \quad \quad \quad (0.5915) \quad \quad \quad (0.0421)** \\ & 0.001742RPAD_{it} - 0.134459logAK_{it} - 0.004847 TPT_{it} \\ & \quad \quad \quad (0.9413) \quad \quad \quad (0.0000)* \quad \quad \quad (0.0052)* \end{aligned}$$

$$R^2 = 0.836788; DW = 2.532684; F. = 7.098933 ; Prob. F = 0.000000$$

Source: Processed data. **Information:** * Significant at $\alpha = 0.01$; ** Significant at $\alpha = 0.05$; *** Significant at $\alpha = 0.10$; The number in brackets is the probability of the t statistic.

B. Selected Model Goodness Test
1. Model Existence Test (Test F)

The F test is used to determine whether all the independent variables in the regression model used have a joint effect on the dependent variable. $H_0: \beta_1 = \beta_2 = \beta_3 = \beta_4 = \beta_5 = \beta_6 = 0$, which means that all regression coefficients are zero, so the Human Development Index, the Construction Expensive Index, the Build Village Index, the Ratio of Regional Original Income, the Labor Force, and Open Unemployment Rate that together have no effect on income distribution inequality. $H_A: \beta_1 \neq 0 | \beta_2 \neq 0 | \beta_3 \neq 0 | \beta_4 \neq 0 | \beta_5 \neq 0 | \beta_6 \neq 0$, which means that at least one of the regression coefficients is non-zero, so that the Human Development Index, the Construction Expensive Index, the Build Village Index, the Ratio of Regional Original Income, the Labor Force, and Open Unemployment Rate jointly affect income distribution inequality.

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Based on **Table 2**, it can be seen that the probability value of F is equal to 0.0000 (< 0.01), so H_0 rejected. Thus, it can be concluded that the estimated model used in this study, namely the Fixed Effects Model (FEM) exists, which means that the variables Human Development Index, the Construction Expensive Index, the Build Village Index, the Ratio of Regional Original Income, the Labor Force, and Open Unemployment Rate jointly affects the inequality of income distribution.

2. Interpretation of the Coefficient of Determination (R^2)

The coefficient of determination (R^2) is used to show how much the predicted power of the estimated model is used in the study. Based on **Table 2**, it can be seen that the value of (R^2) is 0.836788, which means that 83.68% variations in income distribution inequality variables can be explained by variables Human Development Index, the Construction Expensive Index, the Build Village Index, the Ratio of Regional Original Income, the Labor Force, and Open Unemployment Rate. While the rest is equal to 16.32% influenced by other factors outside the model.

C. Test the Validity of the Effect of the Selected Model

Influence validity test (t test) is used to test the significance of the partial effect of the independent variable on the dependent variable. With the formulation of the hypothesis that is $H_0: \beta_i = 0$, meaning that the i model variable is estimated to have no significant effect on the dependent variable, and $H_A: \beta_i > 0$, meaning that the i model variable is estimated to have a significant influence on the dependent variable. In effect validity test H_0 accepted if the probability value of the t-statistic $\beta_i > \alpha$, whereas H_0 is rejected if the probability value of the t-statistic $\beta_i < \alpha$. The following results of the influence validity test of all independent variables can be seen in **Table 3**.

Table 3. Validity Test Results for Fixed Effects Model (FEM) Estimation Model

Variables	Sig.t	Criteria	Conclusion
IPM	0.2756	> 0.10	Not significant
IKK	0.5915	> 0.10	Not significant
IDM	0.0421	< 0.05	Significant at $\alpha = 0.05$
RPAD	0.9413	> 0.10	Not significant
log(AK)	0.0000	< 0.01	Significant $\alpha = 0.01$
TPT	0.0052	< 0.01	Significant at $\alpha = 0.01$

Source: Table 2 (Processed data)

Based on the validity test of the influence of the estimated model that has been carried out, the results are obtained, namely, the independent variables that affect the inequality of income distribution in East Nusa Tenggara Province in 2017-2020 are the build village index, the labor force, and the open unemployment rate. Meanwhile, the variable human development index, the construction expensive index, and the ratio of regional original income have no effect on income distribution inequality in East Nusa Tenggara Province in 2017-2020.

DISCUSSION**The Effect of Human Development Index on Income Distribution Inequality**

Based on the selected estimation model, the human development index variable has a regression coefficient value of 0.003814 and an empirical significance of 0.2756 (> 0.10), it can be concluded that the human development index has no significant effect on income distribution inequality. This means that how much the increase in the human development index will not affect the inequality of income distribution in East Nusa Tenggara Province. This can happen because the level of education and income received by the people in East Nusa Tenggara Province is still low. In addition, the development of infrastructure to support the economy has not been evenly distributed, because these infrastructure facilities are still concentrated in big cities. The results of this study are in accordance with research conducted by (Febriyani & Anis, 2021) which found that the human development index had no effect on income distribution inequality in Indonesia from 2007-2016. In contrast to research conducted by (Ghifara et al, 2022), (Hidayat et al, 2018), and (Juniati et al, 2022) which found that the human development index has a significant effect on income distribution inequality.

The Effect of Construction Expensive Index on Income Distribution Inequality

Based on the selected estimation model, the construction expensive index variable has a regression coefficient value of 0.000189 and an empirical significance of 0.5915 (> 0.10), it can be concluded that the construction cost index has no significant effect on income distribution inequality. This means that how much the increase in the construction cost index will not affect the inequality of income distribution in East Nusa Tenggara Province. This can happen because of the geographical conditions of the East Nusa Tenggara Province, there are still many areas that are difficult to reach. The increasing difficulty of access causes high levels of prices for construction goods, including rental prices for heavy equipment, wholesalers, construction activities, and the level of construction costs. This is because infrastructure development, which is an important aspect of supporting economic activity, is still uneven because infrastructure development is still concentrated in big cities, while infrastructure development that is far from the center of economic activity has not been carried out properly or is still lacking. The results of this study are in accordance with research conducted by (Iqbal et al, 2017) which found that road infrastructure did not have a significant effect on inequality in economic development which caused income inequality between regions in Aceh Province in 2011-2015. In contrast to research conducted by (Makmuri, 2017) and (Noviana, 2020) which found that infrastructure has a negative and significant effect on income distribution inequality.

The Effect of Build Village Index on Income Distribution Inequality

Based on the selected estimation model, the build village index variable has a negative effect and has a significant impact with a regression coefficient of -0.116358 and an empirical significance of 0.0421 (< 0.05), the pattern of relationship between the build village index variable and unequal income distribution is linear -linear. That is, if the build village index increases by index number, then the inequality of income distribution will decrease by 0.116358 index number. Conversely, if the build village index falls by 1 index number, then the inequality of income distribution will increase by 0.116358 index number.

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This can happen because the allocation of village funds used to support the level of welfare of village communities in East Nusa Tenggara Province is uneven, especially in areas that are still lagging behind. This has resulted in the allocation of village funds that should be used to support village autonomy activities so that they can be maximized in providing services, development, and community empowerment at the rural level, instead they are uneven, with this inequality causing the effect of inequality in income distribution to decrease or have an impact negative. The results of this study are in accordance with research conducted by (Kharisma et al, 2021) which found that village funds have a negative effect on the build village index which results in income inequality in Riau Province. And the results of this study are in accordance with research conducted by (Rachma et al, 2019) which found that village funds have a negative effect on the build village index which results in income inequality.

The Effect of Ratio Regional Original Income on Income Distribution Inequality

Based on the selected estimation model, the ratio of regional original income has a regression coefficient value of 0.001742 and an empirical significance of 0.9413 (> 0.10), it can be concluded that the ratio of regional original income has no significant effect on income distribution inequality. This means that how much regional original income get will not affect the inequality of income distribution in East Nusa Tenggara Province. This can happen because of the small contribution of regional original income to sum of all regional income in the province of East Nusa Tenggara. The small contribution of regional original income is caused by the limited access of the Regional Government to regional original income, in fact, the authority possessed by the Regional Governments is only limited to setting tariffs within certain limits set by the Central Government. Land and building taxes, as well as fees for acquiring land rights, which by their nature should be regional taxes, are in fact collected by the central government and then divided among the regions. The results of this study are in accordance with research conducted by (Nurman, 2013) which found that the ratio of local original income had no effect on income disparities in Indonesia from 2001-2008. In contrast to research conducted by (Finuliyah et al, 2022) and (Putri et al, 2014) which found that the ratio of regional original income affects income inequality.

The Effect of Labor Force on Income Distribution Inequality

Based on the selected estimation model, the labor force variable has a negative effect and has a significant impact with a regression coefficient of -0.134459 and an empirical significance of 0.0000 (< 0.01), the relationship pattern between the labor force variable and income distribution inequality is linear-logarithmic. That is, if the labor force increases by 1 person, the inequality in income distribution will decrease by 0.116358 index number. Conversely, if the labor force decreases by 1 person, then the income distribution inequality will increase by 0.116358 index number.

This can happen because of the condition of the labor force in East Nusa Tenggara Province where in general these workers only have low education, as well as low skills and abilities, this results in many workers only having low work productivity with low salaries. also, with these conditions, the influence of inequality in income distribution decreases or has a negative impact. The results of this study are in accordance with research conducted by (Rosalitta & Muljaningsih, 2022) which found that the labor force has a negative effect on income disparities in East Java Province from 2010-2020. In contrast to research

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conducted by (Hulu et al, 2021) which found that the labor force did not have a significant effect on income inequality in Indonesia from 2010-2019.

The Effect of Open Unemployment Rate on Income Distribution Inequality

Based on the selected estimation model, the open unemployment rate variable has a negative effect and has a significant impact with a regression coefficient of -0.004847 and an empirical significance of 0.0052 (<0.01), the pattern of relationship between the open unemployment rate variable and inequality of income distribution is linear-linear. That is if the open unemployment rate increases by 1%, the income distribution inequality will decrease by 0.004847 index number. Conversely, if the open unemployment rate falls by 1%, then the income distribution inequality will increase by 0.004847 index number.

This can happen because of the condition of the workforce in East Nusa Tenggara Province where most of the workforce works in the informal sector such as trade, transportation, and construction as well as in rural areas, namely mining such as sand and stone quarrying with low income. This condition causes an equal distribution of people's income, but on the other hand, this equality is in a low-class economic condition. Judging from the economic equality of the community, the increase in open unemployment will have an impact on reducing economic inequality, but from the perspective of social welfare, this is in stark contrast to the development goals in East Nusa Tenggara Province and also the national development goals. The results of this study are in accordance with research conducted by (Ersad et al, 2022) which found that the open unemployment rate has a negative effect on income inequality in southern Sumatra in 2010-2029. This is also in line with research conducted by (Quintana & Royela, 2012) which found that the open unemployment rate has a negative effect on income inequality.

IMPLICATIONS

This study found that based on the Chow Test and Hausman Test the estimated model is the Fixed Effects Model (FEM). Based on the results of the model existence test (F test) the estimated model exists, which means that the variables Human Development Index, the Construction Expensive Index, the Build Village Index, the Ratio of Regional Original Income, the Labor Force, and Open Unemployment Rate jointly affects the inequality of income distribution. The coefficient of determination (R^2) is 0.836788, which means that 83.68% of the variation in income distribution inequality can be explained by the variables Human Development Index, the Construction Expensive Index, the Build Village Index, the Ratio of Regional Original Income, the Labor Force, and Open Unemployment Rate. While the remaining 16.32% is influenced by other factors outside the model. Based on the results of the influence validity test the Build Village Index, the Labor Force, and the Open Unemployment Rate have an effect on inequality in income distribution. Meanwhile, the variable Human Development Index, the Construction Expensive Index, and Ratio of Regional Original Income have no effect on income distribution inequality in East Nusa Tenggara Province in 2017-2020.

CONCLUSION

In this study, it can be concluded that based on the Chow Test and Hausman Test the estimated model is the Fixed Effects Model (FEM). The F test shows that the estimated model used exists with an F probability value of 0.0000 (<0.01). The coefficient of

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determination (R^2) is 0.836788, which means that 83.68% of the variation in income distribution inequality can be explained by the variables Human Development Index, the Construction Expensive Index, the Build Village Index, the Ratio of Regional Original Income, the Labor Force, and Open Unemployment Rate. While the remaining 16.32% is influenced by other factors outside the model. Based on the results of the influence validity test, the Build Village Index, the Labor Force, and the Open Unemployment Rate have an effect on inequality in income distribution. Meanwhile, the variable Human Development Index, the Construction Expensive Index, and Ratio of Regional Original Income have no effect on income distribution inequality in East Nusa Tenggara Province in 2017-2020. For further research, it is hoped that it will be able to use other variables that are more complex and measurable in analyzing the factors of unequal distribution of income in a region or region, bearing in mind that the independent variables used in this study are still not fully able to explain the factors of unequal distribution. income in East Nusa Tenggara Province. In addition, future research is expected to be able to use more complex and systematic analysis tools to explain the factors of unequal income distribution in an area or region in the short and long term.

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