

ANALYSIS THE EFFECT OF OPEN UNEMPLOYMENT, LABOR FORCE PARTICIPATION AND HUMAN DEVELOPMENT INDEX ON ECONOMIC GROWTH

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ABSTRACT

As one of the main benchmarks, economic growth does not only focus on production figures alone, but must also be seen in the context of equitable distribution of development results. The high Open Unemployment, the low Labor Force Participation, and the low Human Development Index in South Sulawesi are issues that need further research. This study aims to analyze the effect of Open Unemployment, Labor Force Participation, and Human Development Index on economic growth in South Sulawesi. This research uses quantitative methods with panel data covering 24 districts/cities in South Sulawesi during the period 2010-2023. Data were obtained from various official sources such as the Central Bureau of Statistics (BPS) of South Sulawesi Province, the Manpower Office, and other relevant government agencies. The data analysis technique used was multiple linear regression. The results showed that the Open Unemployment had no significant effect on economic growth. Similarly, the Labor Force Participation did not show a significant effect. However, the Human Development Index has a significant effect on economic growth. Simultaneously, these three variables have a significant effect on economic growth with an Adjusted R Square value of 0.979. The results of this study emphasize the importance of improving the quality of the workforce, reducing the unemployment, and investing in the education and health sectors to promote inclusive and sustainable economic growth.

Keywords: Open Unemployment, Labor Force Participation, Human Development Index, Economic Growth.

ABSTRAK

Sebagai salah satu tolak ukur utama, pertumbuhan ekonomi tidak hanya berfokus pada angka-angka produksi semata, tetapi juga harus dilihat dalam konteks pemerataan hasil pembangunan. Tingginya Tingkat Pengangguran Terbuka, rendahnya Tingkat Partisipasi Angkatan Kerja, serta rendahnya Indeks Pembangunan Manusia di Sulawesi Selatan menjadi persoalan yang perlu diteliti lebih lanjut. Penelitian ini bertujuan untuk menganalisis pengaruh Tingkat Pengangguran Terbuka, Tingkat Partisipasi Angkatan Kerja, dan Indeks Pembangunan Manusia terhadap pertumbuhan ekonomi di Sulawesi Selatan. Penelitian ini menggunakan metode kuantitatif dengan data panel yang mencakup 24 kabupaten/kota di Sulawesi Selatan selama periode 2010-2023. Data diperoleh dari berbagai sumber resmi seperti Badan Pusat Statistik (BPS) Provinsi Sulawesi Selatan, Dinas Tenaga Kerja, dan lembaga pemerintah terkait lainnya. Teknik analisis data yang digunakan adalah regresi linier

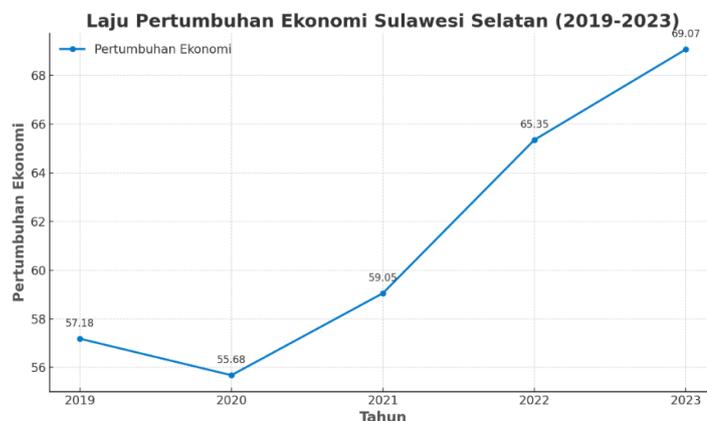
berganda. Hasil penelitian menunjukkan bahwa Tingkat Pengangguran Terbuka tidak berpengaruh signifikan terhadap pertumbuhan ekonomi. Begitu pula dengan Tingkat Partisipasi Angkatan Kerja yang tidak menunjukkan pengaruh signifikan. Namun, Indeks Pembangunan Manusia memiliki pengaruh signifikan terhadap pertumbuhan ekonomi. Secara simultan, ketiga variabel ini berpengaruh signifikan terhadap pertumbuhan ekonomi dengan nilai Adjusted R Square sebesar 0,979. Hasil penelitian ini menekankan pentingnya peningkatan kualitas tenaga kerja, pengurangan tingkat pengangguran, serta investasi dalam sektor pendidikan dan kesehatan untuk mendorong pertumbuhan ekonomi yang inklusif dan berkelanjutan.

Kata kunci: Tingkat Pengangguran Terbuka, Tingkat Partisipasi Angkatan Kerja, Indeks Pembangunan Manusia, Pertumbuhan Ekonomi.

A. INTRODUCTION

Economic growth is a key indicator to assess the success of a region's development. It reflects the ability of a region to increase its production capacity to create goods and services that ultimately improve people's welfare (Wianti & Nurgaheni, 2020). As one of the main benchmarks, economic growth does not only focus on production figures alone, but must also be seen in the context of equitable distribution of development results. If economic growth is not followed by an increase in equitable welfare, then social problems such as poverty, unemployment and economic inequality can continue to arise, despite an increase in GDP figures (Amanullah & Robertus, 2023).

In South Sulawesi, economic growth has fluctuated over the past few years (2019-2023), as reflected in data from the Central Bureau of Statistics (Statistik, 2024). Despite the upward trend, various challenges remain, particularly with regard to the Open Unemployment, Labor Force Participation, and Human Development Index, which are the focus of this research. According to Rahmadi and Parmadi, (2019) increasing gross domestic product (GDP) is not always in line with improving the welfare of the community equally. Therefore, it is important to analyze the factors that influence economic growth and its impact on the quality of life of people in this region.



Source: <https://www.receh.in/2022/11/data-dan-fakta-pertumbuha-ekonomi-pdb.html>

Figure 1. Economic Growth of South Sulawesi

Various previous studies have explored the relationship between the Open Unemployment, Labor Force Participation and Human Development Index to economic growth, both partially and simultaneously. The findings show significant differences. Research by Kusumawati et al., (2021) shows that the Open Unemployment has a negative impact on economic growth. In contrast, another study by Puput Iswandyah Raysharie et al., (2023) This shows that economic growth is negatively impacted by open unemployment. In addition, research by Sarwar et al., (2021) shows that the Human Development Index, through improving the quality of human resources, has a positive relationship with economic growth. However, research by Tuasela, (2023) demonstrates that there are situations in which the Human Development Index has little bearing on economic expansion. This difference in results indicates a gap in the literature regarding the simultaneous influence of these variables in a particular regional context.

The novelty of this research lies in the simultaneous analysis of the Open Unemployment, Labor Force Participation and Human Development Index in driving inclusive and sustainable economic growth which is still limited by Puput Iswandyah Raysharie et al., (2023); Kumayas et al., (2024); and Salam; Abd & Wahab, (2023). By integrating these three variables, this research is expected to provide a more comprehensive insight into the factors driving economic growth in the region. In addition, this study also highlights the importance of improving the quality of human resources, providing productive employment, and strengthening formal labor participation as strategies to promote inclusive and sustainable economic growth (Beno et al., 2022).

This study aims to comprehensively analyze how the Open Unemployment, Labor Force Participation and Human Development Index affect the Economic Growth in South Sulawesi. This research is expected to provide theoretical and practical contributions in supporting decision making related to regional economic policy, especially in creating sustainable and inclusive economic growth.

Economic Growth

An increase in a region's capacity to generate products and services over time is referred to as economic growth. According to Todaro & Smith, (2020), economic growth is often measured through Gross Regional Domestic Product (GRDP), which reflects the productivity of a region. Classical theory, as proposed by Adam Smith, states that economic growth is influenced by capital accumulation, labor, and productivity. Furthermore, modern growth theories, such as the Solow-Swan theory, emphasize the role of investment in physical capital, human capital, and technological progress as the main factors in driving economic growth (Johnson, 2024). The which economic activity will increase people's income over a period of time is indicated by economic growth (Patra, 2022).

Open Unemployment

The fraction of the labor force that is unemployed yet actively looking for work is reflected by the open unemployment. According to Keynes, unemployment occurs due to a lack of aggregate demand for goods and services (Imanda et al., 2023). According to Wang et al., (2012), a high Open Unemployment can reduce the productivity level of a region and

hinder economic growth. In the context of the relationship between unemployment and economic growth, Kitov, (2021) states that every 1% increase in the unemployment can reduce Gross Domestic Product growth by 2%. According to Okun's law, the growth of the gross domestic product and the unemployment are inversely correlated (Okun, 1963).

Research by Lidyawati & Murtala, (2020) claiming that Indonesia's economic growth is significantly and negatively impacted by the open unemployment. Therefore, reducing the unemployment is a priority in improving regional economic performance. These results are in line with the research of Kusumawati et al., (2021); and Rezki Maulana, (2023). Different results are shown by the research of Lubis & Murtala, (2021); and Aini et al., (2024) which show that the Open Unemployment does not significantly affect Economic Growth.

Labor Force Participation

The percentage of people of working age who are actively participating in the labor market is known as the labor force participation. Citaristi, (2022) states that a high Labor Force Participation indicates the level of involvement of human resources in productive activities. According to Becker, (2009) in Human Capital theory, an increase in the Labor Force Participation can be achieved through investment in education and training. Labor demand is closely related to the level of wages offered in the market (Mankiw, 2006).

Research by Natalia & Wahyudi, (2024) demonstrates that, in Lampung Province, the labor force participation contributes to economic growth, even though this effect is not always substantial. This is similar to the results of research from Hierdawati, (2022); and Sinaga et al., (2024). Other results shown by the research of Lutfiah Cahya Firdani, (2023) indicates that the Economic Growth is positively and significantly impacted by the Labor Force Participation, in line with the findings of research by Syamsuddin et al., (2021); and Rahayu Putriana, (2022).

Human Development Index

Three primary areas are covered by the Human Development Index, which is a composite indicator: quality of life, education, and health. According to Gasper, (2022) a high Human Development Index reflects a better quality of life for people, which contributes directly to productivity and economic growth. Kuhumba, (2017) emphasizes the importance of human capability development in supporting sustainable economic growth. The achievement of optimal human development, with the availability of quality human resources, will support a country's economic development to achieve better progress than before (Annur Thayyib, I Ketut Patra, 2024).

Research by Winarti, (2023) This indicates that Banten's economic growth is positively and significantly impacted by the Human Development Index, particularly through raising the caliber of human resources. These results are supported by the research of Damanik & Lubis, (2022); and Isnaini et al., (2023). However, in contrast to the research results from Amalia, (2023); and Maulana et al., (2023) Indicates that there is no discernible relationship between the Human Development Index and economic growth.

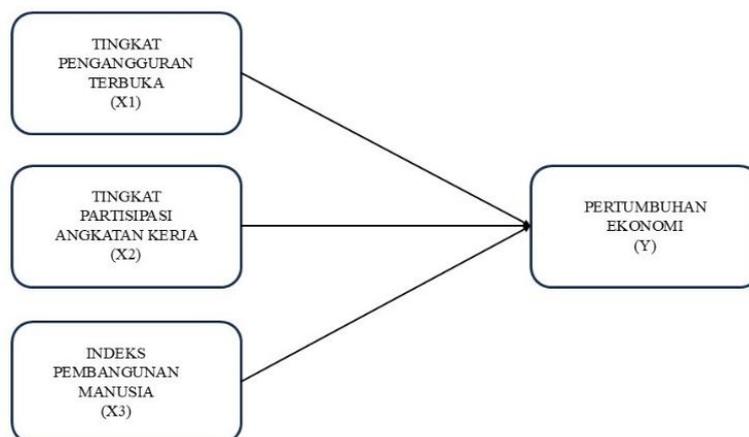


Figure 2. Conceptual framework

B. RESEARCH METHOD

This research adopts a quantitative approach using descriptive and inferential analysis methods. The quantitative approach was chosen to measure the relationship between the independent variables (Open Unemployment, Labor Force Participation, and Human Development Index) and the dependent variable (Economic Growth). The analysis was conducted through the application of multiple linear regression models. This research is included in the type of explanatory research which aims to analyze and explain the causal relationship between the variables studied by utilizing secondary data.

This research was conducted in South Sulawesi Province with an observation period covering the time span from 2010 to 2023. The determination of the period is based on the availability of relevant data on the variables that are the focus of the research, with the hope of providing a comprehensive and in-depth insight into the phenomenon under study. The population in this study included all districts/cities in South Sulawesi Province. This study uses panel data (cross-sectional time series), where the data used covers 24 districts/cities in South Sulawesi with a time period of 2010 to 2023.

Several official sources, including the Manpower Office, the Central Bureau of Statistics (BPS) of South Sulawesi Province, and other pertinent government agencies, provided the data used in this study. The information collected includes key variables, such as the open unemployment, labor force participation, Human Development Index, and economic growth. The use of data from these sources aims to ensure the accuracy, relevance, and reliability of the information in supporting the research analysis. Data were collected through documentation studies, namely reviewing official documents and statistical publications published by the South Sulawesi Central Bureau of Statistics and other supporting literature sources.

Data analysis was carried out to answer research objectives using a quantitative approach. Using the SPSS version 25 software to streamline the data processing procedure, the data in this study were examined using multiple linear regression analysis and the classical assumption test.

Multiple Linear Regression Analysis

To determine the association between one dependent variable and two or more independent variables, multiple linear regression analysis is utilized. Measuring the degree to which the independent variable influences the dependent variable and forecasting the value of the dependent variable using the available independent variables are the objectives (Gujarati, 2009).

Classical Assumption Test

Making sure the applied regression model satisfies the requirements of linearity, unbiasedness, and efficiency is the goal of the classical assumption test. This process involves testing for normality, multicollinearity, heteroscedasticity, and autocorrelation to ensure the validity of the regression analysis results (Gujarati, 2009).

Normality Test

To find out if the regression model's residuals have a normal distribution, the normality test is used. A normal distribution of residuals is very important so that the regression coefficient estimates can be accepted properly. If the residuals are not normally distributed, this can lead to inefficient or biased estimates (Ghozali, 2016). The normality test can be done using the Kolmogorov-Smirnov or Shapiro-Wilk test.

Multicollinearity Test

Finding out if the independent variables in the model have a strong linear relationship is the goal of the multicollinearity test. Excessive multicollinearity may compromise the interpretability of the model and impact the stability of the regression coefficients. Examining the Variance Inflation Factor (VIF) is one method of testing for multicollinearity; a VIF value larger than 10 denotes a major multicollinearity issue (Hair et al., 2010).

Heteroscedasticity Test

At each level of the independent variable, the heteroscedasticity test seeks to determine if the residual variance in the regression model is heteroskedastic (varying) or constant (homoskedastic). Heteroscedasticity can lead to inefficient regression coefficient estimates and incorrect significance tests. Heteroscedasticity test can be performed using Breusch-Pagan test or Glejser test (Gujarati, 2009).

Autocorrelation Test

In time series data, the autocorrelation test is used to determine whether residuals from one period and residuals from the prior period are related. Significant autocorrelation can indicate residual dependence which can affect the accuracy of the model. One way to test for autocorrelation is with the Runs Test, which tests whether the sequence of residual data is randomly distributed. If there is a systematic pattern in the sequence of residuals, then the regression model may not be independent (Gujarati, 2009).

Partial Test (t Test)

To determine if each independent variable has a substantial impact on the dependent variable independently, the t test is utilized. The null hypothesis, according to which there is no effect when the regression coefficient for an independent variable is 0, is

tested with this test. A p value of less than 0.05 indicates that the variable has a substantial impact on the dependent variable (Wooldridge, 2016).

Simultaneous Test (F Test)

To determine if every independent variable has a significant impact on the dependent variable at the same time, the F test is utilized. The null hypothesis, according to which there is no linear relationship between the independent and dependent variables, is tested with this test. The regression model as a whole can be deemed significant if the F statistical value is significant ($p < 0.05$) (Gujarati, 2009).

Multiple Correlation Analysis (R)

The degree of the linear relationship between the dependent variable and each independent variable taken together is measured by multiple correlation analysis. Strong linear relationships between the variables are shown by correlation values near 1, which range from 0 to 1 (Hair et al., 2010).

Coefficient of Determination (R^2)

The degree to which the independent variables in the model can account for variance in the dependent variable is indicated by the coefficient of determination. The regression model can explain the majority of the data variation if its R^2 value is high; conversely, a low R^2 value suggests that the model is less successful in doing so (Wooldridge, 2016).

Based on the conceptual framework scheme and data analysis, the following hypothesis is formulated:

1. **H₁** : It is suspected that the Open Unemployment (X1) has a negative and substantial impact on South Sulawesi's economic growth.
2. **H₂** : It is suspected that the Labor Force Participation (X2) has a positive but insignificant effect on the Economic Growth in South Sulawesi.
3. **H₃** : It is suspected that the Human Development Index (X3) has a positive and significant effect on the Economic Growth in South Sulawesi.
4. **H₄** : It is suspected that the Open Unemployment (X1), Labor Force Participation (X2) and Human Development Index (X3) jointly affect the Economic Growth in South Sulawesi.

C. RESULTS AND DISCUSSION

Result

The results showed that all the data used had met the requirements as a sample that represented the population in the South Sulawesi region. First, the open unemployment refers to the percentage of the labor force that has not yet found a job. Second, the percentage of the working-age population that is economically active is expressed by the labor force participation. Third, the human development index reflects people's quality of life in terms of education, health and income.

1. Normality Test

To determine if the samples or data utilized have a normal distribution, the normality test is employed.

Table 1. Normality Test Results

		Unstandardized Residual
N		14
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	1.94907543
Most Extreme Differences	Absolute	.240
	Positive	.240
	Negative	-.148
Test Statistic		.240
Asymp. Sig. (2-tailed)		.208 ^c

Source: Data was analyzed using SPSS version 25

The table indicates that all variables have an Asymp. Sig (2-tailed) significance value of 0.200, which is greater than 0.05. Consequently, it can be said that the data has a normal distribution in line with the Kolmogorov-Smirnov normality test decision-making process. Therefore, it can be said that the regression model's normality assumption has been satisfied.

2. Multicollinearity Test

To determine whether the independent variables (Open Unemployment, Labor Force Participation, and Human Development Index) in the regression model have a strong linear association, the multicollinearity test is used. One method to detect multicollinearity is by calculating the Variance Inflation Factor (VIF) value.

Table 2. Multicollinearity Test Results

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-	28.563		-14.494	.000		
		413.985						
	TPT	-.390	.792	-.027	-.493	.633	.545	1.837
	TPAK	.403	.417	.045	.966	.357	.743	1.346
	IPM	6.239	.388	.956	16.087	.000	.448	2.233

Source: Data was analyzed using SPSS version 25

Based on the results in the VIF column, the VIF value for Labor Force Participation is 1.837, for Open Unemployment is 1.346, and for Human Development Index is 2.233. Given that every VIF value is less than 5, it can be said that this regression model does not have a multicollinearity issue.

3. Heteroscedasticity Test

To ascertain whether the error variance in the regression model is constant (homoscedasticity) or fluctuating (heteroscedasticity), the heteroscedasticity test is performed.

Table 3. Heteroscedasticity Test Results

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.432	21.568		.113	.912
	TPT	.220	.598	.156	.369	.720
	TPAK	-.114	.315	-.131	-.361	.725
	IPM	.068	.293	.108	.231	.822

Source: Data was analyzed using SPSS version 25

The Open Unemployment variable has a significance value of 0.720, the Labor Force Participation is 0.725, and the Human Development Index is 0.822, as seen in the above table. Based on the output, it shows that all variables have a significance value of more than 0.05, which means that the data does not have symptoms of heteroscedasticity.

4. Autocorrelation Test

The purpose of the autocorrelation test is to determine if the regression model's residuals are correlated.

Table 4. Autocorrelation Test Results

	Unstandardized Residual
Test Value ^a	-.45082
Cases < Test Value	7
Cases >= Test Value	7
Total Cases	14
Number of Runs	7
Z	-.278
Asymp. Sig. (2-tailed)	.781

Source: Data was analyzed using SPSS version 25

The Asymp.Sig (2-tailed) value derived from the above table is 0.781, which is higher than 0.05. This demonstrates that there is no autocorrelation issue in the data analyzed because the data utilized is very random.

5. Multiple Linear Regression Analysis

Determining the link between a single dependent variable and multiple independent variables is the goal of multiple linear regression.

Table 5. Multiple Linear Regression Analysis Test Results

Model		Unstandardized Coefficients		Standardized	t	Sig.
				Coefficients		
		B	Std. Error	Beta		
1	(Constant)	-413.985	28.563		-14.494	.000
	TPT	-.390	.792	-.027	-.493	.633
	TPAK	.403	.417	.045	.966	.357
	IPM	6.239	.388	.956	16.087	.000

Source: Data was analyzed using SPSS version 25

The output results in the regression above show the characteristics of each variable as follows:

- a. The constant of -413.985 indicates that if the Open Unemployment (X1), Labor Force Participation (X2), and Human Development Index (X3) variables do not exist (X = 0), then the Economic Growth is estimated to decrease by 413.985%.
- b. The coefficient β_1 of -0.390 indicates that every 1% increase in the Open Unemployment variable will cause a 39% decrease in the Economic Growth.
- c. The coefficient β_2 of 0.403 indicates that every 1% increase in the Labor Force Participation variable will increase the Economic Growth by 40.3%.
- d. The coefficient β_3 of 6.239 states that every 1% increase in the Human Development Index variable will increase the Economic Growth by 623.9%.

6. Multiple Correlation Analysis (R) and Coefficient of Determination (R²)

Multiple correlation analysis (R) is used to measure how strong the linear relationship is between the dependent variable and all independent variables simultaneously. In the meanwhile, the degree to which the independent variables in the model can account for variance in the dependent variable is indicated by the coefficient of determination (R²).

Table 6. Test Coefficient of Determination (R²)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.992 ^a	.984	.979	2.22229	1.594

Source: Data was analyzed using SPSS version 25

Based on the table, the R value is 0.992. Since the correlation value is in the range of 0.80-1, it is concluded that there is a very strong relationship between the Open Unemployment (X1), Labor Force Participation (X2), and Human Development Index (X3) to the Economic Growth (Y).

Furthermore, the output results demonstrate that the independent variables (Open Unemployment, Labor Force Participation, and Human Development Index) account for 97.9% of the variation in the dependent variable (Economic Growth), with an Adjusted R Square value of 0.979. Stated otherwise, 97.9% of the influence on the dependent variable comes from the independent variables, with the remaining 2.1% coming from other factors not covered by this research paradigm.

7. Partial Test (T Test)

To determine how significantly each independent variable independently affects the dependent variable in the regression model, a partial test (T test) is used.

Table 7. Partial Test Results

Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Coefficients		
1	(Constant)	-413.985	28.563		-14.494	.000
	TPT	-.390	.792	-.027	-.493	.633
	TPAK	.403	.417	.045	.966	.357
	IPM	6.239	.388	.956	16.087	.000

Source: Data was analyzed using SPSS version 25

a. The effect of Open Unemployment (X1) in the table above shows that the calculated t value is smaller than the t table (0.493 < 2.228) and has a significance value of 0.633, which is greater than 0.05. Thus, H0 is accepted and H1 is rejected, indicating that the open unemployment does not have a significant influence on the Economic Growth (Y).

- b. The effect of Labor Force Participation (X2) in the table above shows that t count is smaller than t table ($0.966 < 2.228$) and the significance value is 0.357, which is also greater than 0.05. Thus, H0 is accepted and H1 is rejected, indicating that the labor force participation has no significant effect on the Economic Growth (Y).
- c. The effect of Human Development Index (X3) in the table above shows that t count is greater than t table ($16.087 > 2.228$) and has a significance value of 0.000 which is smaller than 0.05. Thus, H1 is accepted and H0 is rejected, which indicates that the human development index has a significant effect on the economic growth (Y).

8. Simultaneous Test (F Test)

The F test measures the simultaneous impact of each independent variable on the dependent variable in the regression model.

Table 8. Simultaneous Test Results

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3075.230	3	1025.077	207.566	.000 ^b
	Residual	49.386	10	4.939		
	Total	3124.616	13			

Source: Data was analyzed using SPSS version 25

Because the calculated F value is greater than the F table ($207.566 > 4.102$), then H0 is rejected. This indicates that simultaneously, the Open Unemployment (X1), Labor Force Participation (X2), and Human Development Index (X3) have a significant influence on the Economic Growth (Y) in South Sulawesi.

Discussion

Effect of Open Unemployment on Economic Growth

The calculated t value is less than the t table ($0.493 < 2.228$) with a significance value of 0.633, which is greater than 0.05, according to the results of the tests conducted. Therefore, it can be said that the open unemployment has no discernible impact on economic growth in South Sulawesi, meaning that if the open unemployment rises, the Economic Growth will fall. These results are not in line with research by Lidyawati & Murtala, (2020) demonstrates how Indonesia's economic growth is significantly and negatively impacted by the open unemployment. Okun's law found a negative relationship between economic growth and unemployment. Theoretically, a high Open Unemployment is often considered a bad indicator for economic growth because it indicates an imbalance between the number of job seekers and available jobs, which in turn can reduce productivity and efficiency in a region's economy (Wang et al., 2012).

Effect of Labor Force Participation on Economic Growth

The computed t value is less than the t table ($0.966 < 2.228$) with a significance value of 0.357, which is higher than 0.05, according to the study findings. Therefore, it can be said that South Sulawesi's economic growth rate is not much impacted by the fluctuating labor force participation. The findings obtained indicate that the higher the level of labor force participation in South Sulawesi, the economic growth increases but not significantly.

The study's findings are consistent with those of Natalia & Wahyudi, (2024), who found that the labor force participation in Lampung Province positively influences the economic growth, albeit not significantly. According to the Human Capital theory proposed by Becker, (2009), a high Labor Force Participation should encourage economic growth by increasing the number of workers who are active in the productive sector. However, these findings show that although the Labor Force Participation is high, its effect on economic growth is not significant. This could be due to the low quality of the labor force involved, despite its high participation, so that its contribution to increasing economic productivity is relatively limited.

Effect of Human Development Index on Economic Growth

It can be inferred from the research findings that the human development index significantly influences the economic growth in South Sulawesi because the computed t value is higher than the t table ($16.087 > 2.228$) with a significance value of 0.000, which is less than 0.05. The results show that the economic growth in the area increases with the level of the human development index. The findings of this study are consistent with Winarti, (2023) research, which found that the human development index significantly and favorably influences Banten Province's the economic growth. The Human Development Theory put forward by Gasper, (2022) suggests that a high Human Development Index is associated with a better quality of life, which in turn increases productivity and economic capacity.

Simultaneous Effect of Open Unemployment, Labor Force Participation and Human Development Index on Economic Growth

The Open Unemployment, Labor Force Participation, and Human Development Index all significantly affect South Sulawesi's pace of economic growth, according to the results of the F test. The Adjusted R Square value of 0.979, which indicates that these three factors account for 97.9% of the variation in the Economic Growth in South Sulawesi, supports this conclusion. In the meantime, additional factors not covered by the model account for the remaining 2.1%. This indicates that although the Open Unemployment and Labor Force Participation do not have a significant impact partially, these three variables interact with each other in influencing economic growth. According to Dahliah & Nur, (2021) In the economic growth model, the unemployment can be an obstacle to productivity, while increasing labor force participation and the human development index can accelerate economic growth through improving the quality of human resources.

D. CONCLUSION

This study examines the relationship between South Sulawesi's economic growth from 2010 to 2023 and three key variables: open unemployment, labor force participation, and human development index. Based on the results of the regression analysis, neither the labor force participation nor the open unemployment had a significant effect on economic growth. However, the Human Development Index variable was shown to have a significant relationship with the Economic Growth, confirming that improving the quality of life

through the health, education, and living standards sectors can accelerate economic growth. Simultaneous analysis shows that collectively, the Open Unemployment, Labor Force Participation and Human Development Index have a significant influence on economic growth, with an Adjusted R Square value of 0.979, meaning 97.9% of the variation in Economic Growth can be explained by these three variables.

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