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THE EFFECT OF ECONOMIC GROWTH ON THE UNEMPLOYMENT RATE IN MEDAN CITY 2017-2023

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Abstract

This study analyzes the effect of economic growth on the unemployment rate in Medan City for the period 2017-2023 using secondary data from the Central Statistics Agency (BPS) and using simple linear regression analysis. The results of the analysis show a negative relationship between economic growth and the unemployment rate, but the effect is not statistically significant ($p>0.05$). The t-test shows a significant constant, but the economic growth coefficient is not significant. The F test also shows that the overall regression model is not significant ($p>0.05$). The R-square of 0.463 indicates that the model only explains 46.3% of the variation in the unemployment rate, the rest is influenced by other factors. Economic growth in Medan City for that period did not have a significant effect on the unemployment rate. Other factors such as the quality of education, workforce training, infrastructure, and business incentives need to be considered to reduce unemployment. The government needs to increase quality economic growth and improve factors supporting employment.

Keywords: ***Economic Growth, Unemployment, Medan***

1. INTRODUCTION

Indonesia possesses substantial economic potential, encompassing abundant natural resources and human capital. However, economic progress is not always consistent; the economy experiences fluctuations between periods of growth and decline. Economic slowdowns pose a significant challenge, often leading to economic instability. Several factors contribute to this instability, notably economic growth and high unemployment rates. Economic growth signifies increased economic activity resulting in higher production of goods and services and improved public prosperity, generally measured by regional gross domestic product (RGDP). Continuous increases in a nation's or region's economic growth signal a healthy and developing economy (Amri Amir, 2007). Conversely, a lack of economic growth can lead to significant unemployment. When economic growth is not accompanied by sufficient job creation and capacity is limited relative to a growing population, unemployment rates tend to rise. Furthermore, economic growth without corresponding inflation control can decrease public welfare, as income levels struggle to keep pace with rising prices (Nuraini, 2017). Unemployment constitutes a significant long-term macroeconomic problem, particularly prevalent in urban areas of developing nations like Indonesia. The influx of people into cities due to urbanization exacerbates unemployment in these urban centers. Sumitro Djojohadikusumo (1994) highlights both open and hidden unemployment as critical issues hindering the economic development of developing countries. The success or failure of efforts to mitigate this significant problem greatly influences the social and political stability within a society, and the continuity of long-term economic development. Understanding the impact of unemployment on economic growth is crucial not only for economic reasons, but also for its social and political implications, impacting various levels of society. (Johnson, 2019) High unemployment erodes public trust and leads to various social problems. As noted by Riska Kurnia and Ishak Hasan, unemployment is a key factor contributing to challenges in economic growth. A primary aspect to consider when assessing economic development is the impact of increasing open unemployment rates on a nation's economic growth. Economic growth data is presented in the table below:

Table 1: Economic Growth and Unemployment Rates in Medan City, 2017-2023

No	Year	Economic Growth (%)	Unemployment Rate (%)
1	2017	5,81	5,60
2	2018	5,92	5,56
3	2019	5,93	8,53
4	2020	1,98	10,74
5	2021	2,62	10,81
6	2022	4,71	8,89
7	2023	5,04	8,67

Source: Badan Pusat Statistik (BPS), 2017-2023

Based on BPS statistical data in the table above, economic growth in Medan City shows fluctuation. The highest economic growth was recorded in 2019, while the lowest was in 2020 due to the COVID-19 pandemic. Observing the data, high economic growth in Medan City is accompanied by high unemployment, and low economic growth correlates with low unemployment. This suggests that economic growth alone cannot reliably be used as a measure to address unemployment, as increases in economic growth can coincide with increases in unemployment figures. Increased economic growth is not necessarily accompanied by an increase in job creation, resulting in persistent high unemployment rates. The relationship between unemployment and economic growth is inversely proportional; higher economic growth generally leads to lower unemployment. This aligns with Ishak Hasan's research, which indicates that economic growth is a factor influencing unemployment. However, Syurifto Prawira's research suggests that economic growth is not the sole factor influencing unemployment and has a negative and insignificant effect on unemployment rates. Considering the inconsistency of these research findings and the high economic growth data for Medan City, a decrease in unemployment should be expected. However, the reality is that unemployment remains relatively high in Medan City. This observation necessitates further research on the topic of "The Influence of Economic Growth on the Unemployment Rate in Medan City". The complexity of this economic problem warrants further scientific investigation.

2. THEORETICAL FRAMEWORK

Economic Growth

Economic growth is a process of increasing overall economic output or a change in a nation's economic condition over time. This usually manifests as an increase in national income over a defined period. Economic growth represents a continuous process of altering economic conditions towards a more favorable state over a specific timeframe. Economic growth theory explains the factors that influence or determine economic growth and its long-term processes, describing how these factors interact.

Unemployment

Unemployment describes the state in which a member of the workforce seeks employment but remains unable to find it. Individuals who are not employed but not actively searching for work are not classified as unemployed. According to the Central Statistics Agency (BPS), within employment indicators, unemployment encompasses individuals who are not working but are actively seeking employment, preparing to start a new business, or who have accepted a job but have not yet commenced work.

The Relationship Between Economic Growth and Unemployment

A strong correlation exists between economic growth and unemployment rates. Increases in economic growth are typically associated with a decrease in unemployment. This is due to the fact that positive economic growth stimulates increased production and investment, leading businesses to require more employees to satisfy market demand. However, the effect of economic growth on unemployment is also modulated by other factors, such as labor productivity and the compatibility of worker skills with industry requirements. Consequently, while economic growth generally reduces unemployment, its effect varies depending on the structural conditions of a nation's labor market (Mankiw, 2018; Todaro & Smith, 2015).

3. RESEARCH METHODOLOGY

This research utilizes a quantitative approach, incorporating a literature review to formulate a conceptual framework and identify quantitative patterns within secondary data obtained from the Central Statistics Agency (BPS). Data collected from the BPS website (www.bps.go.id) was analyzed. Simple linear regression analysis was employed, including partial (t-test), simultaneous (F-test), and coefficient of determination tests to assess the relationship between the independent variable (X: Economic Growth) and the dependent variable (Y: Unemployment Rate). Data processing and analysis were conducted using SPSS 20.

4. RESULTS AND DISCUSSION

Data for this research was sourced from the Badan Pusat Statistik (BPS) website, providing periodic data on economic growth and unemployment rates in Medan City. This research analyzes the overall influence of economic growth on unemployment in Medan City, employing time-series data from 2017 to 2023. Data management utilized SPSS 20 software with simple linear regression.

Simple Linear Regression Analysis

Tabel 2 Simple Linear Regression
Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1453.581	347.863		4.179	.009
	Pertumbuhan Ekonomi	-1.499	.722	-.680	-2.076	.093

a. Dependent Variable: Tingkat Pengangguran

Source: Data processed using SPSS 20

Y=1453.581 + (-1.499)

The coefficient for Economic Growth (-1.499) suggests that a one-unit increase in economic growth is predicted to decrease the unemployment rate by 1.499 units. This represents a negative relationship; higher economic growth is associated with lower unemployment. Regarding significance (Sig.), the Sig. value for the constant is 0.009 (or 0.9%), which is less than 0.05 (the general significance level), indicating statistical significance. This means the constant in the model is significantly different from zero. For Economic Growth, the Sig. value is 0.093 (or 9.3%), which is greater than 0.05, indicating that the coefficient for Economic Growth is not statistically significant at the 5% significance level. Therefore, while the model shows a negative relationship between economic growth and unemployment, the effect of economic growth on the unemployment rate is not statistically significant based on this test.

Partial Test (T)

The t-test reveals a significant constant ($p < 0.05$), but the influence of economic growth on unemployment is insignificant ($p > 0.05$). The t-value for the constant is 4.179 (Sig. = 0.009 < 0.05), indicating statistical significance. The t-value for Economic Growth is -2.076 (Sig. = 0.093 > 0.05), signifying that the coefficient for the "Economic Growth" variable is not statistically significant. Although the model shows a negative relationship between economic growth and unemployment, the influence of economic growth on unemployment is not sufficiently strong to be declared statistically significant.

Simultaneous Test (F)

Tabel 3 Simultaneous Test (F)
ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	358753.378	1	358753.378	4.308	.093[b]
1	Residual	416406.622	5	83281.324		
	Total	775160.000	6			

a. Dependent Variable: Tingkat Pengangguran
b. Predictors: (Constant), Pertumbuhan Ekonomi

The simultaneous (F) test yields a Sig. value of 0.093, which is greater than 0.05. This indicates that the overall regression model is not significant. The independent variables (constant and economic growth) together do not significantly explain the variation in the dependent variable (unemployment rate).

Coefficient of Determination Test

Tabel 4 Coefficient of Determination Test

Model Summary[b]

R Square	Adjusted R Square	Std. Error of the Estimate
.463	.355	288.58504

a. Predictors: (Constant), Pertumbuhan Ekonomi

Source: Data processed using SPSS 20

The R-squared value of 0.463 shows that approximately 46.3% of the variation in the unemployment rate can be explained by the constructed regression model (using the constant and economic growth as predictors). The remaining 53.7% is explained by other factors not included in the model. The lower adjusted R-squared value (0.355) accounts for the number of predictors in the model, showing that the model's ability to explain the variation in unemployment rates decreases after considering the number of predictors. Based on these research results, there is not enough strong evidence to conclude that economic growth significantly affects unemployment rates in Indonesia. The coefficient for economic growth (-1.499) is not statistically significant ($p = 0.093$). The F-test indicates that the overall regression model is not significant ($p = 0.093$), meaning that the independent variables (constant and economic growth) together do not significantly explain the variation in unemployment rates. The R-squared value of 0.463 shows that the model explains only about 46.3% of the total variation in unemployment rates. The remaining 53.7% is explained by other factors not included in the model. Several factors could explain these research findings. Firstly, economic growth in Medan was not substantial. During the period 2017-2023, economic growth in Medan ranged only between 1.98% and 5.93%. This low economic growth was insufficient to create enough jobs to absorb the available workforce.

Based on these findings showing that economic growth did not have a significant impact on unemployment in Indonesia during the 2017-2023 period ($p > 0.05$), this research concludes that factors beyond economic growth play a more dominant role in determining unemployment rates. This aligns with the understanding that the quality of education and workforce training, the availability of infrastructure, and business incentives are also crucial factors that influence job availability. The regression model used only explains a percentage of the variation in the unemployment rate, indicating the importance of other variables not considered in this model. The government must take action to improve the quality of economic growth. Additionally, the government needs to improve the quality of education and workforce training, provide adequate infrastructure, and offer incentives to businesses. These efforts are expected to create more and higher-quality jobs, thereby reducing unemployment in Medan.

5. CONCLUSION

This research concludes that economic growth in Medan City from 2017 to 2023 did not significantly impact the unemployment rate. Although regression analysis shows a negative relationship between these two variables, statistical tests (t-test and F-test) show that this relationship is not statistically significant ($p > 0.05$). The R-squared value of 0.463 indicates that the regression model only accounts for 46.3% of the variation in unemployment rates, while the remaining 53.7% is influenced by other factors not included in the model. Therefore, increasing economic growth alone is not sufficient to reduce unemployment in Medan City. The government needs to consider and address other factors influencing unemployment, such as the quality of education and workforce training, the availability of adequate infrastructure, and providing incentives for businesses to create more and higher-quality jobs.

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