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Original Article

Analysis of the Factors Affecting the Open Unemployment Rate in Central Sulawesi Province

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Abstract

Unemployment remains a critical challenge for the Indonesian economy, including in Central Sulawesi Province. Economic growth, measured by Gross Regional Domestic Product (GRDP), and human development quality, measured by the Human Development Index (HDI), are two key factors suspected to influence the Open Unemployment Rate (TPT). This study aims to analyze the influence of GRDP and HDI on the Open Unemployment Rate in Central Sulawesi Province from 2014 to 2023. This study utilised a descriptive quantitative research method using secondary data obtained from the Central Statistics Agency (BPS) for the period 2014–2023. Data collection techniques were carried out through documentation, while data analysis used elasticity analysis to measure the level of responsiveness of TPT changes to variations in GRDP and HDI. Based on the research, the results show that changes in GRDP have a significant and negative effect on the open unemployment rate in Central Sulawesi Province from 2014 to 2023. An increase in GRDP will reduce the open unemployment rate in Central Sulawesi Province. Changes in HDI have a significant and negative effect on the open unemployment rate in Central Sulawesi Province from 2014 to 2023. An increase in HDI will reduce the open unemployment rate in Central Sulawesi Province. The study concludes that both economic expansion and improvements in human capital are effective strategies for reducing unemployment in the region.

Keywords: Gross Regional Domestic Product, Human Development Index, Open Unemployment Rate.

1. Introduction

Unemployment is an inevitable problem in any country's economy. Unemployment refers to a situation where the labor force is unable to obtain work that meets their needs and desires. In other words, unemployment refers to situations where the labor force does not have job opportunities. Unemployment does not only refer to people who do not have jobs or people who are looking for work. People who already have jobs and are doing their work can also be considered unemployed because the concept of unemployment can be viewed from three dimensions: time, work intensity, and productivity (Suparmono, 2018).

Open unemployment is a problem that often occurs in developing countries worldwide, including Indonesia. In Indonesia, open unemployment has been a widely discussed issue since the New Order era, given the many dynamics that have occurred, affecting the country's economy. The goal of national development itself is to improve people's welfare, and to realize successful development, many changes must be made to support national development, considering Indonesia is still a developing country. This will influence maintaining economic stability and high economic growth, which will eventually impact reducing the open

unemployment rate in Indonesia. Several factors that influence the open unemployment rate include economic growth rate, wages, inflation, and investment (Rambe et al., 2019)

Based on data from the Central Statistics Agency of Indonesia (2023), Indonesia's unemployment rate percentage fluctuated during the 2018-2022 period. The percentage of Indonesia's unemployment rate with a population of approximately 340 million people divided into 38 provinces spread from Sabang to Merauke, where in 2018 Indonesia's unemployment rate reached 5.3 percent. After that, in the following year 2019, there was a positive trend where Indonesia's unemployment rate decreased by 0.7 percent to 5.23 percent.

The following year, Indonesia's unemployment rate experienced a negative trend due to the emergence of the Covid-19 pandemic that paralyzed all economic access and activities, and many workers were laid off or terminated *en masse*, so Indonesia's unemployment rate at that time experienced a fairly drastic increase of 1.84 percent to 7.07 percent. In the following year, the economy began to recover slowly, although many workers were still working from home (WFH), but this was still better, so the unemployment rate experienced a positive trend from 7.07 percent to 6.49 percent in 2021. Different in 2022, where the economy began to grow, access to all activities was relaxed, individual distancing restrictions were relaxed, making the unemployment rate improve and experience a positive trend at 5.86 percent.

Central Sulawesi Province in Indonesia is faced with a significant issue of open unemployment, as indicated by data from BPS. The open unemployment rate in this province stood at 3.00 percent in 2022 and saw a marginal decrease to 2.95 percent in 2023. Despite this improvement, the unemployment figure remains notably high. This high unemployment rate is due to minimal absorption of vocational high school graduates caused by inadequate competencies and skills, as well as public mindset that only tends to pursue civil service positions. Therefore, the government needs to make efforts to improve human resource quality and expand job opportunities. High economic growth is a manifestation of a region's success in building its economy (BPS Central Sulawesi, 2024).

Development is undertaken in order to achieve prosperity by focusing on economic growth to address issues like unemployment and poverty, ultimately leading to improved community well-being. In addition, several important aspects are not only about economic growth, but how effectively the resources owned are used to absorb the existing labor force. One way to evaluate the effectiveness of a country's or region's economy is by looking at its economic growth. The open unemployment rate is influenced by economic growth, as higher growth leads to higher unemployment rates, while lower growth leads to lower unemployment rates (Romhadhoni et al., 2019).

According to Sukmaraga and Hayati (2011), the country's open unemployment rate can be influenced by GDP, which is the total value of goods and services produced by a country in a specific timeframe. According to research by Silaban et al. (2020), the constant price GRDP is utilized to calculate the annual economic growth rate. The GRDP has an impact on the workforce, as a higher GRDP value is linked to an increase in the value of goods and services produced in a region. This, in turn, leads to a higher demand for labor. According to Arizal & Marwan (2019) in their research, the Open Unemployment Rate is influenced by the Gross Regional Domestic Product in a way where a higher GRDP results in a decrease in unemployment, and a lower GRDP leads to an increase in unemployment.

Central Sulawesi plays a crucial role in Indonesia's economy by serving as a hub for agricultural, plantation, fishery, and nickel mining products, particularly in the areas of food agriculture, fishery, and industry. However, the Central Sulawesi Provincial Government, responsible for implementing development initiatives, is currently grappling with challenges related to boosting regional economic growth and enhancing the well-being of its residents.

According to statistics from BPS, economic growth in Central Sulawesi Province has shown fluctuations between 2019 and 2023. The rate was 8.83 percent in 2019, dropped to 4.86 percent in 2020, surged to 11.68 percent in 2021, climbed further to 15.22 percent in 2022, and then fell to 11.91 percent in 2023 (BPS Central Sulawesi, 2024).

This economic slowdown was triggered by the slowing growth of agriculture, forestry, and fisheries business fields as the main pillars of the economy, as well as the services, industry, and trade sectors. Economic growth that continues to decline causes national income to experience setbacks and unemployment to increase (Haryanto, 2013). HDI is considered as a potential influence on the open unemployment rate. One strategy to tackle poverty issues and boost economic development involves enhancing Human Resources and raising the Human Development Index (HDI) by focusing on improving Mean Years of Schooling from the educational perspective.

Referring to data from BPS, the Mean Years of Schooling for the population aged 15 years and above in Central Sulawesi Province in 2019 was 8.91 years. This data shows that on average, Central Sulawesi residents aged 15 years and above have completed formal education for 8.91 years. In 2022, the Mean Years of Schooling value in Central Sulawesi Province was 8.89 years, and in 2023 it was 8.96 years. Regionally (Sulawesi Island), it ranks 2nd after North Sulawesi Province. This certainly needs attention from the local government, because low HDI correlates positively with poverty rates as well as economic growth. The government's role is very important to realize economic development. A region will lag behind other regions if it does not pay attention to improving human welfare in making policies.

According to Napitupulu (2007), the Human Development Index focuses on three key areas: longevity and health, education, and living standards. Workers with good health, high education levels, and a comfortable standard of living are likely to produce better quality work. Conversely, the higher the workers' poor working conditions, the lower their work output quality will be. This proves that three key aspects in human growth serve as yardsticks for evaluating the caliber of employees available for hire, in order to combat the prevailing high unemployment rates in a given region. As noted by Mahroji & Nurkhasanah (2019), if the increase in population is not met with qualified Human Resources, individuals will struggle to secure employment in the local job market. An indication of the quality of human resources is reflected in the Human Development Index (HDI) data. In research by Mifrahi & Darmawan (2022), the open unemployment rate is heavily impacted by the Human Development Index. An increase in HDI results in a decrease in the unemployment rate.

The goal of economic progress is to enhance the quality of life for individuals, create more employment prospects, and ensure fair distribution of income. Gaps or inequalities in getting jobs show that the lack of job opportunities is still a major problem in Indonesia. The disconnect between the expansion of the labor force and the advancement of different economic industries in terms of job absorption is evident. Rapid population growth leads to a quick increase in the labor force, ultimately leading to a decrease in available employment opportunities. Another goal of economic development is equitable development. The fair distribution of resources between the central and regional areas is crucial for successful regional autonomy. One way to gauge the well-being of a region's residents is by looking at the Gross Regional Domestic Product (GRDP), which represents the total value of goods and services produced in an area during a specific time frame. In fact, GRDP has an effect on the number of working labor force with the assumption that if the GRDP value increases, the amount of added value output in all economic units in an area will increase. Output that increases in quantity will cause an increase in the number of labor absorption demanded.

The level of skills and talent among the workforce could lead to a rise in joblessness within a region. A region's level of skills and talent can be measured by looking at its Human Development Index (HDI). Whether a region has a high or low HDI will impact the overall productivity of its workforce. High population productivity will expand job opportunities, thus reducing unemployment. Based on this phenomenon, the research objective is formulated to analyze the effect of GRDP and HDI on the Open Unemployment Rate in Central Sulawesi Province in 2014-2023.

2. Literature Review

2.1. Open Unemployment

The Central Statistics Agency (BPS) defines unemployment as individuals who are seeking employment but cannot find a job, individuals who have given up on finding a job, and individuals who are employed but currently not working (Hussmanns et al., 1990). Unemployment poses a significant challenge for numerous countries, with Indonesia being no exception. Elevated levels of unemployment can lead to a plethora of social and economic issues, including diminished standards of living, escalating poverty, and financial uncertainty.

The unemployment rate is caused by the uneven availability of job opportunities in each GRDP sector. In addition, the level of education and soft skills possessed by each community can affect the existing unemployment rate (Irawan et al., 2023). Limited job availability with a large working-age population can affect the suboptimal receipt of GRDP in each sector, so there is a need for training and opening job opportunities that can increase GRDP growth.

2.2. Gross Regional Domestic Product

According to the Bureau of Economic Analysis, Gross Regional Domestic Product (GRDP) is described as the overall increase in value generated by every business entity in a specific region, or as the combined worth of all finished products and services created by every economic entity in a specific region (BPS, 2024). According to information from the BPS, the GRDP is split into two categories: GRDP calculated using prices from the present time and GRDP calculated using prices from a specific year. The GRDP at Current Prices is determined based on the current year's prices for production, intermediate costs, and added value. On the other hand, the GRDP at Constant Prices is determined based on specific prices from a designated year or base year for production, intermediate costs, and added value (BPS, 2024).

One way to determine the economic status of a region at a particular point in time is by analyzing GRDP data, which can be based on either current prices or constant prices. As noted by Sukirno (2016), stresses that economic growth is characterized by an increase in per capita output over the long term, with a focus on the processes involved, per capita output, and sustainability. Economic growth should be viewed as an ongoing process rather than a snapshot of the economy at a specific moment. It is essential for regional and sectoral development to progress simultaneously in order for sectoral development to align with regional potential and priorities. GRDP represents the total value added by all businesses and services in a region, encompassing the sum of all final goods and services generated by economic entities. Essentially, GRDP reflects the overall value added by businesses or the total value of goods and services produced by economic entities in a specific region.

Community welfare development is calculated by the increase in per capita GRDP. A higher GRDP value indicates significant economic growth in the area, reflecting progress in the economy. Economic growth is achieved when both internal (endogenous) and external (exogenous) factors are taken into account and combined within a region. The prevailing

method for understanding regional growth is through the utilization of macroeconomic models (Afrizal, 2013).

Constant-price Gross Regional Domestic Product functions as the standardized measurement for determining year-over-year economic growth rates (Sukirno, 2016). According to BPS (2019), current-price GRDP quantifies the added value of goods and services using variable annual pricing parameters, whereas constant-price GRDP employs a fixed base-year pricing methodology for value calculation. Current-price GRDP provides analytical capability for examining economic structural modifications, while constant-price GRDP enables temporal growth rate analysis through consistent pricing frameworks.

Kuncoro (2015) emphasize that the traditional development methodology constitutes an approach prioritizing GRDP maximization across provincial, regency, and municipal administrative units. Economic growth parameters are quantified through GRDP growth coefficients, which function as primary regional economic indicators. BPS (2024) designates GRDP datasets as essential macroeconomic variables for annual regional economic assessment protocols. The sectoral classification system for GRDP has undergone systematic expansion from nine to seventeen business field categories, providing comprehensive economic sector coverage through seventeen distinct classifications: Agriculture, Forestry, and Fisheries; Mining and Quarrying; Manufacturing Industry; Electricity and Gas Procurement; Water Supply, Waste Management, Waste and Recycling; Construction; Wholesale and Retail Trade, Car and Motorcycle Repair; Transportation and Warehousing; Accommodation and Food Service Provision; Information and Communication; Financial Services and Insurance; Real Estate; Company Services; Government Administration, Defense and Mandatory Social Security; Education Services; Health Services and Social Activities; and Other Services (BPS, 2024).

2.3. Human Development Index (HDI)

HDI, according to the Central Statistics Agency, is a measure of human success based on several fundamental aspects of quality of life. The Human Development Index (HDI) is derived from several factors, such as life expectancy factors that can indicate performance in the health sector, average years of schooling factors that can indicate educational performance, and purchasing power factors that can indicate community ability to meet basic needs using income approaches to measure development success in meeting decent living needs. HDI can be used as an indicator to measure how far the progress of socio-economic development of a country by combining the Knowledge, Health Services, and adjusted per capita Income sectors. The Human Development Index (HDI) consists of several indicators as follows: Education Index (gaining knowledge), Health Index (having a long and healthy life), Expenditure Index (having a decent life based on standards).

According to Pratiwi (2024), HDI is a tool used to compare life expectancy, literacy, education, and living standards. It indicates how well a population can achieve improvement in areas such as income, health, and education through development. The Human Development Index (HDI) evaluates countries worldwide based on life expectancy, education, and income levels. It categorizes nations as either developed, developing, or underdeveloped based on these factors and assesses how economic policies impact the well-being of their populations (Bastian, 2016). There are three dimensions used as the basis for calculating the Human Development Index according to Anggraini (2018), life expectancy at birth, expected schooling and average years of schooling, and decent living standards. According to BPS, the benefits of the Human Development Index include: Potential as an effective measuring tool for human quality development, Having the ability to measure government performance (Annam & Nasir, 2024).

2.4. Previous Research

Wee et al. (2024) executed a regression analysis to quantify the effects of Open Unemployment Rate, GRDP, and Human Development Index variables in Minahasa Regency across the temporal framework 2011-2021. Secondary datasets from BPS Minahasa Regency served as the data source. Statistical analysis yielded significant positive coefficients for both GRDP and Human Development Index variables relative to Open Unemployment Rate parameters.

Annam and Nasir (2024) implemented panel data modeling to analyze Open Unemployment Rate determinants in Banten Province during 2018-2022. The analytical framework assessed HDI and GRDP variable impacts on unemployment metrics across regional administrative units. Panel data methodology confirmed statistically significant relationships between HDI, GRDaP, and open unemployment rate variables in Banten Province.

Widiyati (2016) identified unemployment as a multidimensional economic variable requiring systematic analytical approaches. The quantitative research design employed panel data analysis to measure GRDP and HDI impacts on urban unemployment in Central Java Province. Statistical results demonstrated significant coefficients for both GRDP and HDI variables in relation to open unemployment rates across the provincial region.

3. Methods

3.1. Research Type

This study utilizes a descriptive research approach, which focuses on observing and examining social phenomena by analyzing data. The selection of descriptive research was based on its ability to evaluate the impact of GRDP and HDI on the Open Unemployment Rate in Central Sulawesi Province.

3.2. Data Collection Techniques

Data collection was carried out using documentation techniques. The data used is secondary data, namely Open Unemployment Rate, GRDP, and HDI data for Central Sulawesi Province in 2014-2023 conducted online from third parties through the Central Sulawesi Central Statistics Agency (BPS) website and processed based on research interests.

3.3. Data Analysis Methods

The method used to determine the effect of GRDP and HDI on TPT is by using elasticity analysis. Elasticity is a term used in economics to see the responsiveness of one variable to changes in another variable. The elasticity analysis method is used to answer the research objective, namely to determine the responsiveness of TPT in Central Sulawesi Province to changes in GRDP and HDI. The first step is to calculate the growth of each independent variable (GRDP and HDI). According to Arsyad (2010), the following formula can be used:

$$gl = \frac{lt - lt^{-t}}{lt^{-t}} \times 100$$

Where:
gl = GRDP/HDI Growth
lt = GRDP/HDI in the calculation year
lt-t = GRDP/HDI in the previous year

The second step of analysis in this research is to calculate the growth of the Open Unemployment Rate (TPT) in Central Sulawesi Province. According to Arsyad (2010), the following formula can be used:

$$gY = \frac{Yt - Yt^{-1}}{Yt^{-1}} \times 100$$

Where:
gY = TPT growth
Yt = TPT number in the calculation year
Yt-1 = TPT number in the previous year

The third stage of determining TPT elasticity involves applying the elasticity formula. Elasticity is a broad concept used to measure how one variable reacts to changes in another variable. When variable A responds to changes in variable B, the elasticity of A to B can be calculated by dividing the change in A by the change in B (Mankiw et al., 2014). The tourism retribution elasticity formula is as follows:

$$E = \frac{gL}{gY}$$

Where:
E = TPT Elasticity
gl = GRDP/HDI Growth
gy = TPT Growth

4. Results and Discussion

4.1. Analysis of Central Sulawesi Province GRDP 2014-2023

The ability of an area to create output (added value) at a certain time is described through GRDP. Based on research conducted from 2014 to 2023 (BPS Central Sulawesi Province, 2024) in 12 Regencies and 1 City in Central Sulawesi Province, it was found that the average achievement of GRDP values in 13 regencies/cities in Central Sulawesi Province experienced an increase. Of the 13 regencies/cities, 11 regencies rely on their economic growth through the agricultural sector and tourism sector. Meanwhile, Morowali Regency relies on its development in the manufacturing industry sector. Meanwhile, Palu City relies on the construction sector, trade sector, and government administration.

Morowali Regency stands out among 12 other regencies/cities for having the most impressive GRDP performance. The significant contribution of the manufacturing and mining sectors has played a key role in this achievement. It is recorded that the growth of these two sectors on average over the last five years has been very high, reaching 28 percent (manufacturing industry) and 20 percent (mining sector). Banggai Laut Regency and Banggai Islands Regency are two regencies that have the lowest GRDP achievement among the other 10 regencies/cities in Central Sulawesi Province. These two regencies only have an average GRDP figure of 2.7 trillion (Banggai Islands) and 1.6 trillion (Banggai Laut), and their development only relies on the agricultural sector (BPS Central Sulawesi, 2024).

Table 1. Central Sulawesi Province GRDP 2014-2023 (Million Rupiah)

Year	GRDP
2014	71.677.531
2015	82.787.202
2016	91.014.565
2017	97.474.859
2018	103.617.686
2019	127.935.057
2020	134.152.695
2021	149.849.807
2022	172.624.825
2023	193.181.368

Source: BPS Central Sulawesi Province, 2024

According to the information presented in Table 1, it is clear that the rise in economic prosperity in Central Sulawesi Province is driven by enhanced output across various industries, unaffected by inflation.

4.2. Analysis of Central Sulawesi Province Human Development Index 2014-2023

The Human Development Index (HDI) can reflect the level of population welfare achievement in basic services in education, health, and community welfare. In Indonesia, the Human Development Index (HDI) is considered essential data due to its role in evaluating government effectiveness and influencing the distribution of General Allocation Funds (DAU). With the implementation of regional autonomy, it is crucial for each region to understand its own HDI figures for planning and assessing progress in human development. This helps in tracking the impact of development initiatives and ensuring equitable distribution of resources.

Based on data from BPS Central Sulawesi Province (2024), it is known that the average HDI value of Central Sulawesi Province over the last 10 years is 69.067. This value indicates that the achievement of the human development index in Central Sulawesi Province is in the medium category. Palu City is an area that has an HDI value above 80, which means Palu City's HDI is in the very high category, then Morowali Regency and Poso Regency with an average HDI value above 70, which means high HDI quality, while the other 10 regencies are at a medium level with HDI achievements below 70.

Table 2. Central Sulawesi Province Human Development Index 2014-2023

Year	Human Development Index (HDI)
2014	66,43
2015	66,76
2016	67,47
2017	68,11
2018	68,88
2019	69,50
2020	70,31
2021	70,54
2022	71,01
2023	71,66

Source: BPS Central Sulawesi Province, 2024

Human development in Central Sulawesi continues to progress. The status of human development in Central Sulawesi is at a "high" level. During 2020-2024, Central Sulawesi's HDI increased by an average of 0.68 percent per year, from 70.31 in 2020 to 71.66 in 2023.

The increase in HDI in 2023 was supported by all its constituent dimensions, especially decent living standards. Two indicators experienced growth acceleration: Life Expectancy at 0.25 percent compared to the previous year at 0.24 percent, and Mean Years of Schooling (MYS) at 0.89 percent compared to the previous year at 0.79 percent. Meanwhile, Expected Years of Schooling (EYS) growth was the same as 2022 growth at 0.08 percent, and Real per Capita Expenditure grew by 3.81 percent, slowing compared to the previous year which grew by 4.67 percent.

4.3. Analysis of Open Unemployment Rate in Central Sulawesi Province 2014-2023

Unemployment is one of the economic problems in Indonesia, including Central Sulawesi Province. High unemployment rates are very serious problems that greatly affect regional conditions, because the number of unemployed is an indicator of regional economic progress that can show whether income distribution is even or uneven (Sukirno, 2016).

Research results show that the unemployment rate in Central Sulawesi Province over the last ten years (2014-2023) was 3.32 percent. From 2014 to 2023, the open unemployment rate in Central Sulawesi Province tended to decrease. The Open Unemployment Rate (TPT) in Central Sulawesi in 2014 was recorded at 3.68 percent. In 2019, the open unemployment rate was 3.11 percent, increased to 3.77 percent in 2020, but from 2021 to 2023 it continued to decline, reaching 2.95 percent, down 0.05 percent from 2022. The decrease in the open unemployment rate in Central Sulawesi Province does not show significant figures where the average decrease is very low, only reaching 0.05 percent annually.

Over the last ten years, the area with the largest open unemployment rate was Palu City. From 2014 to 2022, the Open Unemployment Rate in Palu City was above 6 percent, in 2023 it dropped to 5.65 percent. Meanwhile, the area with the lowest open unemployment rate was Banggai Islands Regency, which reached below 2 percent. This condition is caused by the potential of the fisheries and tourism sectors, as well as government support for the development of small and medium enterprises (SMEs).

Table 3. Central Sulawesi Province Open Unemployment Rate 2014-2023

Year	Open Unemployment Rate
2014	3,68
2015	4,10
2016	3,29
2017	3,81
2018	3,37
2019	3,11
2020	3,77
2021	3,75
2022	3,00
2023	2,95

Source: BPS Central Sulawesi Province, 2024

There were significant increases that occurred in 2015, 2017, and 2020, caused by several factors, including economic slowdown, structural changes in the labor market, and skill mismatches. The tendency to decrease the open unemployment rate in Central Sulawesi Province is due to improvements in labor absorption in Central Sulawesi, although there are still challenges in reducing unemployment rates significantly. Although there has been a decrease, TPT in Central Sulawesi is still a challenge because it shows that there are still people who have not gotten decent jobs.

4.4. The Effect of GRDP and HDI on Open Unemployment Rate in Central Sulawesi Province 2014-2023

The elasticity of GRDP and HDI to the Open Unemployment Rate in Central Sulawesi Province shows the magnitude of changes in the open unemployment rate as a result of changes in GRDP and HDI in Central Sulawesi. Based on calculation results, the following results were obtained:

Table 4. Elasticity of GRDP and HDI to Open Unemployment Rate in Central Sulawesi Province 2014-2023

Year	GRDP Elasticity to TPT	Description	HDI Elasticity to TPT	Description
2014	-0,96	Inelastic	-4,836	Elastic
2015	0,17	Inelastic	-2,862	Elastic
2016	-2,68	Elastic	-1,683	Elastic
2017	-5,30	Elastic	-1,357	Elastic
2018	-9,23	Elastic	-2,723	Elastic
2019	-4,732	Elastic	-2,249	Elastic
2020	-4,420	Elastic	-3,107	Elastic
2021	-4,777	Elastic	-3,164	Elastic
2022	-6,458	Elastic	-1,616	Elastic
2023	-3,472	Elastic	-5,696	Elastic

Source: Processed Data Results

Based on the calculation in table 4 related on the GRDP elasticity coefficient values to the Open Unemployment Rate in Central Sulawesi Province 2014-2023, they tend to fluctuate, with an average coefficient value of 2.38 percent with elastic criteria, namely providing a large influence on the open unemployment rate in Central Sulawesi Province. The analysis results can be concluded that GRDP changes affect the Open Unemployment Rate in Central Sulawesi 2014-2023. In 2014 and 2015, the coefficient value was less than 1 percent, so it was included in the inelastic criteria, but from 2016 to 2023, the coefficient value was more than 1 percent with elastic criteria.

The meaning of inelastic in 2014 and 2015 in GRDP elasticity to TPT is that GRDP changes have a small impact on the open unemployment rate in Central Sulawesi Province. In other words, GRDP changes do not significantly change community conditions in seeking or getting jobs. The effect of HDI on the Open Unemployment Rate is also shown in the table above. It is recorded that from 2014 to 2023, the elasticity coefficient shows elastic figures, which states that HDI influences changes in the Open Unemployment Rate in Central Sulawesi. Changes in GRDP and HDI are negative, meaning that every increase in GRDP and HDI will reduce the open unemployment rate in Central Sulawesi Province.

The findings from this investigation align with Mahroji & Anwar (2020), which explains that population numbers have a positive effect on unemployment in Central Java Province. Regression results state that a 1 percent increase in population variables will increase 0.881 percent unemployment. The GRDP variable has a positive effect on the unemployment rate. Regression results state that a 1 percent increase in GRDP variables will increase 0.184 percent unemployment. The HDI variable has a positive and significant effect on unemployment. High HDI will cause a decrease in unemployment numbers. Regression results state that a 1 percent increase in HDI variables will reduce 0.881 percent unemployment. Simultaneously, population numbers, GRDP, and HDI affect unemployment rates with a coefficient of determination value of 85%.

Research supporting this result is research conducted by Annam & Nasir (2024), which explains that HDI and GRDP significantly affect the Open Unemployment Rate in Banten

Province. This research is inversely related to research by Wee et al. (2024), which explains that GRDP variables have a positive and significant effect on open unemployment, and HDI has a significant and positive effect on the open unemployment rate.

5. Conclusion

Statistical analysis confirms that GRDP variables maintain significant negative coefficients relative to open unemployment rate parameters in Central Sulawesi Province across the 2014-2023 dataset. GRDP increases produce corresponding decreases in unemployment rate measurements. HDI variables similarly demonstrate significant negative correlation coefficients with unemployment rates throughout the specified temporal framework. HDI enhancements yield quantifiable unemployment rate reductions within the provincial system. In relation to this research, it is recommended that the government should increase the development of economic sectors in Central Sulawesi Province, particularly focusing on sectors that rely heavily on labor force involvement. Additionally, the government must prioritize development in the fields of Education and Health by increasing government spending in these areas and creating more job opportunities to enhance community income levels.

6. References

Afrizal, F. (2013). *Analisis pengaruh tingkat investasi, belanja pemerintah dan tenaga kerja terhadap PDRB di Provinsi Sulawesi Selatan Tahun 2001-2011*. Universitas Hasanuddin.

Anggraini, Y. (2018). *Kebijakan peningkatan indeks pembangunan manusia (IPM) di Indonesia*. Indocamp.

Annam, M. M., & Nasir, M. S. (2024). Analisis Faktor Yang Mempengaruhi Tingkat Pengangguran Terbuka Di Provinsi Banten 2018-2022. *JIDE : Journal Of International Development Economics*, *2*(01), 01–20. https://doi.org/10.62668/jide.v2i01.1104

Arizal, M., & Marwan, M. (2019). Pengaruh Produk Domestik Regional Bruto dan Indeks Pembangunan Manusia Terhadap Tingkat Pengangguran Terbuka di Provinsi Sumatera Barat. *Jurnal Ecogen*, *2*(3), 433. https://doi.org/10.24036/jmpe.v2i3.7414

Bastian, I. (2016). *Strategi Manajemen Sektor Publik*. Salemba Empat.

Haryanto, T. P. (2013). Pengaruh pengeluaran pemerintah terhadap pertumbuhan ekonomi kabupaten/kota di Provinsi Jawa Tengah tahun 2007-2011. *Economics Development Analysis Journal*, *2*(3). https://doi.org/10.15294/EDAJ.V2I3.1989

Hussmanns, R., Mehran, F., & Varmā, V. (1990). *Surveys of Economically Active Population, Employment, Unemployment, and Underemployment: An ILO Manual on Concepts and Methods*. International Labour Office.

Irawan, Raysharie, P. I., Tesalonika, Septianingsih, D., Samman, M., Satrio, M., Sari, N., Nisa, S. P., & Zulkarnain. (2023). Pengaruh Pengangguran Terhadap Pertumbuhan Ekonomi. *Nian Tana Sikka : Jurnal Ilmiah Mahasiswa*, *2*(1), 98–106. https://doi.org/10.59603/niantanasikka.v2i1.258

Kuncoro, M. (2015). *Mudah memahami dan menganalisis indikator ekonomi*. UPP STIM YKPN.

Mahroji, D., & Anwar, S. (2020). Sumber Daya Manusia Dan Tingkat Pengangguran Di Provinsi Jawa Tengah. *Jurnal Ekobis : Ekonomi Bisnis & Manajemen*, *10*(1), 48–57. https://doi.org/10.37932/j.e.v10i1.84

Mahroji, D., & Nurkhasanah, I. (2019). Pengaruh Indeks Pembangunan Manusia Terhadap Tingkat Pengangguran Di Provinsi Banten. *Jurnal Ekonomi-Qu*, *9*(1).

Mifrahi, M. N., & Darmawan, A. S. (2022). Analisis tingkat pengangguran terbuka di Indonesia periode sebelum dan saat pandemi covid-19. *Jurnal Kebijakan Ekonomi Dan Keuangan*, *1*(1), 111–118. https://doi.org/10.20885/JKEK.vol1.iss1.art11

Napitupulu, A. S. (2007). *Pengaruh Indikator Komposit Indeks Pembangunan manusia terhadap penurunan jumlah penduduk miskin di Sumatera Utara*. Universitas Sumatera Utara.

Pratiwi, N. (2024). *Faktor–Faktor Yang Mempengaruhi Indeks Pembangunan Manusia Di Indonesia Kawasan Timur*. Universitas Sultan Ageng Tirtayasa.

Rambe, R. C., Prihanto, P. H., & Hardiani, H. (2019). Analisis faktor-faktor yang mempengaruhi pengangguran terbuka di Provinsi Jambi. *E-Jurnal Ekonomi Sumberdaya Dan Lingkungan*, *8*(1), 54–67. https://doi.org/10.22437/jels.v8i1.11967

Romhadhoni, P., Faizah, D. Z., & Afifah, N. (2019). Pengaruh Produk Domestik Regional Bruto (PDRB) Daerah terhadap Pertumbuhan Ekonomi dan Tingkat Pengangguran Terbuka di Provinsi DKI Jakarta. *Jurnal Matematika Integratif*, *14*(2), 113. https://doi.org/10.24198/jmi.v14.n2.19262.113-120

Silaban, P. S. M. J., Sembiring, I. P. S. B., & Sitepu, V. A. B. (2020). Analisis Pengaruh PDRB dan Inflasi terhadap Pengangguran Terbuka di Sumatera Utara Periode 2003-2019. *Jurnal Ilmiah Ekonomi Global Masa Kini*, *11*(2), 127–132. https://doi.org/10.36982/jiegmk.v11i2.1077

Sukirno, S. (2004). Makroekonomi Teori dan Pengantar. *Jakarta: PT. Raja Grifindo Persada*.

Sukmaraga, P., & Hayati, B. (2011). *Analisis Pengaruh Indeks Pembangunan Manusia, PDRB per kapita, dan Jumlah Pengangguran terhadap Jumlah Penduduk Miskin di Provinsi Jawa Tengah*. Universitas Diponegoro.

Suparmono, S. (2018). *Pengantar Makro Ekonomi*. UPP STIM YKPN Yogyakarta.

Wee, D., Kawung, G. M. V, & Masloman, I. (2024). Analisis Faktor-Faktor Yang Mempengaruhi Tingkat Pengangguran Terbuka Dan Kemiskinan Di Kabupaten Minahasa. *Jurnal Berkala Ilmiah Efisiensi*, *24*(2), 133–145.

Widiyati, R. (2016). *Analisis Faktor-Faktor Yang Mempengaruhi Tingkat Pengangguran Terbuka Di Kota-Kota Provinsi Jawa Tengah*. Universitas Muhammadiyah Surakarta.