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The Relationship Between Macroeconomic Variables and Employment Opportunities in Urban Areas

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ABSTRACT

Purpose: This study aims to analyze the impact of wage levels, inflation, economic growth, and investment on employment opportunities in Makassar, thereby providing an empirical understanding of the key factors influencing labor market dynamics in the region.

Research Design and Methodology: This study employs a quantitative approach using multiple linear regression. Secondary data were obtained from the Central Statistics Agency (BPS) of Makassar City, covering ten years. The analysis involved a series of classical assumption tests and regression coefficient estimations to examine the effect of each independent variable on employment opportunities.

Findings and Discussion: The results of the study indicate that wage levels have a significant negative effect on employment opportunities, meaning that wage increases tend to reduce labor absorption. Inflation does not have a significant effect on employment opportunities. Economic growth has been shown to have a significant positive effect, meaning that increased economic activity drives job creation. Meanwhile, the level of investment does not have a significant effect, indicating that current investment is not yet fully oriented toward labor-intensive sectors.

Implications: These findings guide local governments in formulating balanced wage strategies, maintaining price stability, promoting inclusive economic growth, and directing investment toward productive sectors that expand employment opportunities.

Introduction

Economic development is a process aimed at improving people's standard of living. It can be measured by the level of real per capita income (Suparmoko, 1992, p. 5). The success of development is reflected not only in a region's economic growth but also in its ability to provide adequate employment opportunities for the community. Employment opportunities are a key indicator of economic development because high labor absorption signifies low unemployment rates, which ultimately contribute to improved social welfare. Employment opportunities also reflect the economy's capacity to absorb enough workers to meet daily living needs. The issue of employment opportunities is not only related to the availability of jobs for the workforce but also concerns the quality and adequacy of jobs that can provide a decent return. When employment increases and is accompanied by high productivity, economic development can proceed more rapidly and inclusively. Employment opportunities provide avenues for the workforce to enter various economic sectors and are significantly influenced by macroeconomic factors such as wages, investment, inflation, and economic growth. Employment data is generally measured by the number of people aged 15 and older who are employed (Tambunan, 2001). Rapid economic growth also requires the availability of infrastructure and facilities that support accelerated development (Jhingan, 2000), while the quality

of human resources is a key element in the effectiveness of such growth. In Makassar City, employment dynamics fluctuate, with the unemployment rate reaching 8.16% in 2021 and declining to 6.32% in 2023, though it remains higher than the provincial average. At the same time, investment value reached Rp 6.4 trillion in 2023, while inflation and minimum wage increases exhibit complex patterns in relation to labor absorption. These conditions highlight the need for a more in-depth empirical analysis to understand how these macroeconomic variables influence employment opportunities in urban areas such as Makassar.

Research on the determinants of employment opportunities in Indonesia yields diverse findings that vary by region. Regarding the wage variable, most studies find a positive effect on labor absorption. Wildan (2018) reported that wage increases boost labor demand, thereby expanding employment opportunities. This finding aligns with Rasulong & Syam (2024), who indicate that wages have a positive and significant effect. However, this relationship is not always stable. Ariska et al. (2021) noted that wages do not have a significant effect on employment opportunities in certain sectors, indicating varying elasticity across industries. The investment variable exhibits a more inconsistent pattern. Desideria et al. (2019) found that investment does not significantly affect labor absorption. Wati & Juanda (2024) also reported negative and insignificant results. Conversely, Wiriana & Sudibia (2022) demonstrated that investment can have a positive and significant impact, indicating that its effects are highly determined by sector and region. Regarding the economic growth variable, some studies, such as Wildan (2018), found a significant positive effect. However, recent research shows more varied results. Ramadhani & Ananda (2024) reported a negative or insignificant relationship, while Sulistiyanti et al. (2023) found that the effect of economic growth is sectoral: positive in industry and services, but negative in agriculture. Meanwhile, inflation generally shows a weak or insignificant effect on employment opportunities, as found by Ariska et al. (2021). Concurrently, Sutama et al. (2021) found that wages, inflation, investment, and GRDP can explain 76.9% of the variation in employment opportunities. However, their specific impacts depend heavily on the region and the study period.

Although various previous studies have examined the effects of wages, investment, inflation, and economic growth on employment opportunities, the available findings indicate significant empirical inconsistencies across regions and time periods. Some studies, such as Wildan (2018), indicate that wages and economic growth positively affect employment opportunities. However, other studies, such as Ariska et al. (2021) and Ramadhani & Ananda (2024), found that the effects of these two variables can be insignificant or even negative, particularly in certain sectors and regions. These differing results indicate that the mechanism linking macroeconomic variables and employment opportunities is not universal but is heavily influenced by regional economic structures, characteristics of dominant industries, and local labor market dynamics. The most striking inconsistency is observed in the investment variable. While Wiriana & Sudibia (2022) found that investment has a positive and significant effect on employment opportunities, other studies, such as Desideria et al. (2019), actually show that investment has no significant effect or even a negative impact. These differing results demonstrate that not all investments have the same capacity to absorb labor, particularly in regions that are increasingly shifting toward capital-intensive rather than labor-intensive sectors. On the other hand, although Sutama et al. (2021) demonstrated that the simultaneous combination of these variables explains 76.9% of the variation in employment opportunities, the study was conducted in regions with economic characteristics distinct from those of major cities such as Makassar. Based on the identified empirical and theoretical gaps, this study offers novelty by presenting an analysis focused on the context of a major urban area such as Makassar, which has an economic structure based on trade, services, and investment that differs from the regions that were the focus of previous studies. Another novelty lies in the simultaneous integration of four key variables—wages, inflation, economic growth, and investment volume—within a single analytical framework to assess their impact on employment opportunities at a more specific regional level, thereby providing a more accurate picture of labor market dynamics in metropolitan areas. Furthermore, this study expands the literature by re-examining prior research that produced inconsistent results, particularly on investment and economic growth, thereby enabling an evaluation of the relevance of labor economics theory in the context of a developing urban economy. Based on this foundation, the objective of this study is to

analyze and explain the effects of wages, inflation, economic growth, and investment levels on employment opportunities in Makassar, both partially and simultaneously, to provide a more comprehensive empirical understanding and support the formulation of regional development policies responsive to local labor market dynamics.

Literature Review

Job opportunities

Employment opportunities can be understood as the economy's capacity to provide job positions that absorb labor in accordance with skills, productivity, and the needs of the labor market in a specific region. This concept refers not only to the number of available jobs but also to the structure, quality, sustainability, and accessibility of these employment opportunities for the labor force. In the global literature, employment opportunities are viewed as the result of the interaction between the dynamics of labor demand and supply, technological conditions, labor market institutions, and macroeconomic policies. Iversen & Strøm (2020) emphasize that employment opportunities are significantly influenced by the labor market's capacity to accommodate the diversity of skill levels in the workforce. These findings indicate that the availability of employment opportunities cannot be separated from a country's or region's ability to create an economic structure that inclusively accommodates the workforce through adaptive labor market institutions, skills training, and the enhancement of human capital quality. On the other hand, Cruz (2023) explains that employment opportunities are also heavily determined by the dynamics of labor productivity and real wage growth, as these two factors influence firms' hiring and layoff decisions. Thus, employment opportunities do not merely reflect the number of people working but also illustrate how the economy sustainably absorbs labor through production processes, business growth, and the capacity of economic sectors to create new jobs. Employment opportunities are also linked to the structural relationship between global economic processes and the domestic labor market. Szymczak (2024) demonstrates that a country's integration into global value chains (GVCs) can increase employment opportunities through industrial sector expansion and increased labor demand stemming from international production linkages. This demonstrates that employment opportunities are determined not solely by a country's internal factors but also by its region's economic position within the global production network. Furthermore, employment dynamics are significantly influenced by changes in macroeconomic conditions, such as inflation rates and economic uncertainty. Kassouri (2024) explains that inflation uncertainty directly impacts a decline in labor demand because firms tend to postpone business expansion and hiring when price conditions are unstable. A similar perspective is also evident in Rendon's (2021) study, which states that job creation is significantly influenced by financial stability and imperfect labor market conditions. Rendon (2021) emphasizes that structural barriers, such as limited access to capital, labor market rigidity, and price uncertainty, can slow job creation even in the presence of investment activity. Employment opportunities reflect complex, multidimensional economic conditions, in which factors such as productivity, technology, price stability, global integration, and labor market institutions play a crucial role in shaping the availability of jobs for the public.

Wages

Wages are the financial compensation workers receive for their contributions to the production process, and this concept reflects the fundamental relationship between workers and employers, as well as the overall dynamics of the labor market. In the modern labor economy, wages are understood not only as payment for hours worked or output produced, but also as a signal of productivity, an incentive mechanism, and an indicator of workers' well-being. Okudaira et al. (2019) emphasize that the minimum wage, as a structural component of the wage system, plays a crucial role in establishing a lower bound for worker compensation, thereby preventing exploitation in an unbalanced labor market. This perspective aligns with the concept that wages serve to maintain workers' minimum living standards while simultaneously pressuring firms to improve operational efficiency. Meanwhile, Dube & Lindner (2024) explain that in the 21st-century economy, wage structures are increasingly influenced by technological changes, industrial restructuring, and transformations in production

systems; consequently, wages are no longer determined solely by bilateral agreements between workers and firms but also by state regulations, global market dynamics, and labor institutional structures. In this context, Yadin et al. (2024) emphasize that wage dynamics are closely linked to labor mobility levels; the more flexible labor movement is across regions and sectors, the more responsive wage mechanisms become to changes in economic conditions. These changes demonstrate that the concept of wages is now far more complex, as it simultaneously encompasses economic, social, and institutional dimensions. Beyond serving as a compensation tool, wages function as a mechanism for labor allocation and a determinant of a job's attractiveness in the labor market. Stansbury & Summers (2020) demonstrate that real wages play a crucial role in shaping firms' hiring decisions, as wages influence labor costs and prompt firms to adjust production strategies—whether through productivity improvements or changes in labor force structure. From a microeconomic perspective, wages are viewed as the price of labor, yet macroeconomic literature emphasizes that wages are also the primary determinant of long-run labor demand and supply. Popp (2023), through a meta-analysis of the German labor market, confirms that the elasticity of labor demand with respect to wages is highly dependent on industrial structure, the skill level of the workforce, and the flexibility of the labor market itself. Thus, changes in wages will have different impacts on labor-intensive and capital-intensive sectors. Meanwhile, Siregar (2020) demonstrates that in developing countries like Indonesia, the minimum wage has more complex implications because, in addition to protecting workers, wage policies must also accommodate the diverse absorption capacities of industries. On the other hand, Rendon (2021) argues that value-added creation through investment also influences wage dynamics, as wages are often adjusted to align with productivity and a company's financial capacity to respond to external changes. This comprehensive study demonstrates that wages are not merely an economic instrument but an integral part of the labor market institutions that influence workers' well-being, corporate cost structures, and the overall stability of the labor market.

Inflation

Inflation is an economic condition characterized by a sustained rise in the general price level, which reduces the purchasing power of money and affects overall macroeconomic stability. In modern literature, inflation is understood as a multidimensional phenomenon that is not only related to changes in the prices of goods and services but also reflects interactions among aggregate demand, aggregate supply, economic agents' expectations, and various external shocks. Kassouri (2024) asserts that inflation cannot be understood solely through movements in consumer prices, but also through the uncertainty it creates about labor market behavior and corporate decisions. This view is reinforced by Sirot et al. (2024), who explain that inflation dynamics are closely linked to labor market activity because price changes often affect labor force participation rates, the intensity of job search, and workers' perceptions of the real value of their wages. Furthermore, Lin et al. (2023) highlight that inflation not only affects household consumption but also serves as a key determinant of adjustments to monetary and fiscal policies, as the government uses both instruments to control price pressures while maintaining economic stability. In line with this, Yani (2024) emphasizes that the central bank plays a central role in formulating and implementing modern monetary policy, where inflation control is one of the primary objectives to maintain policy credibility, currency stability, and economic actors' confidence in the financial system. Inflation is also viewed as an important signal regarding economic health and the effectiveness of public policy. When inflation is at moderate levels, it can reflect dynamic economic activity and healthy demand growth. However, when inflation rises significantly, this can erode household purchasing power, increase production costs, reduce corporate profitability, and alter the structure of the labor market. Caballero et al. (2023) demonstrate that high inflation prompts countries to tighten monetary policy, which typically leads to a decline in investment and a slowdown in real sector expansion. Furthermore, Angelov (2023) states that fluctuations in inflation are linked to changes in labor market behavior, as firms adjust their hiring strategies, cost structures, and operational projections in response to rising price pressures. This understanding further clarifies that inflation is an economic variable influencing various aspects of the economy—from consumption, production, and investment to the perceptions and expectations of economic agents. These complex dynamics of inflation indicate that inflation analysis is not limited to movements in the Consumer Price

Index but must also consider external factors such as global shocks, exchange rate stability, changes in interest rates, and inflation expectations shaped by historical experience and government policies. Thus, the concept of inflation must be understood as an economic phenomenon that influences nearly all economic decisions, whether at the household, firm, or government level.

Economic growth

Economic growth is the process of sustainably increasing an economy's production capacity, as reflected in the long-term rise in the output of goods and services and supported by improvements in productivity and the efficient use of resources. Within the framework of modern economic theory, economic growth is viewed not only as an increase in Gross Domestic Product (GDP) but also as a key indicator of structural dynamics, technological change, labor market transformations, and shifts in socio-economic institutions. Haider et al. (2023) explain that economic growth reflects a country's ability to expand economic activity, increase value added in productive sectors, and build the capacity to absorb a larger workforce. This perspective indicates that growth depends not only on quantitative expansion but also on qualitative factors that influence the effectiveness of the production system. A similar view is presented by Padhi & Sharma (2023), who emphasize that economic growth is a long-term phenomenon driven by capital accumulation, increased productivity in strategic sectors, and a shift in the labor force structure from traditional to modern sectors. In addition to structural changes, growth is supported by improvements in technological capabilities, industrial innovation, and human capital quality, which enable production processes to achieve higher efficiency. In line with this, Distia (2023) asserts that the stability and effectiveness of financial markets play a crucial role in reinforcing long-term growth pathways, as a healthy financial system can efficiently channel capital, support productive investment, and strengthen the economic foundation for sustainable expansion. Economic growth is also viewed as a consequence of the interaction of various macroeconomic and institutional factors that influence labor market behavior and national production dynamics. Irshad & Qayed (2023) demonstrate that growth results from the intensity of the relationship between output increases and the economic sector's ability to optimize labor utilization through productivity gains. Thus, growth does not occur automatically but requires a conducive environment characterized by policy stability, efficient resource allocation, and adequate economic infrastructure support. Al Abri et al. (2023) emphasize that economic growth is significantly influenced by labor demand aligned with the expansion of productive sectors, particularly in countries reliant on migrant labor. This illustrates that growth is a complex process that depends not only on internal factors but is also closely linked to external dynamics such as global market integration, labor mobility, and changes in the structure of international trade. Furthermore, Liotti (2022) explains that economic growth plays a strategic role in reducing unemployment rates and strengthening social stability, particularly when accompanied by active labor market policies and investments in quality workforce. From this perspective, economic growth is not merely a macroeconomic performance indicator but also a crucial foundation for creating job opportunities, enhancing industrial competitiveness, and improving overall societal well-being.

Total investment

The total investment is the cumulative sum of capital expenditures by all economic actors, including individuals, households, firms, and the government—over a specific period to expand production capacity and create future economic value. Theoretically, total investment reflects the magnitude of capital commitments directed toward the production of future goods and services, thereby serving as a crucial foundation for output growth and the structural transformation of the economy. Within a microeconomic framework, total investment encompasses firms' decisions to allocate resources to fixed assets such as machinery, buildings, equipment, and technology, as well as to expand production capacity. These decisions also involve careful consideration of profit expectations, business risks, interest rates, and overall market conditions. Jeon et al. (2023) explain that investment depends not only on the availability of funds but also on firms' ability to determine the optimal combination of labor and capital and on expectations about future output. This perspective highlights that the level of investment serves as a key barometer for businesses in assessing long-term economic prospects. When business actors perceive that economic stability is maintained,

government policies are consistent, and demand for goods or services is increasing, their inclination to invest increases. From a macroeconomic perspective, the volume of investment encompasses not only domestic capital investment but also foreign capital inflows, which often play a strategic role in expanding a country's production base. Foreign direct investment (FDI) is a key component of investment that makes a significant contribution to total capital accumulation, as it not only provides additional funds but also brings technological knowledge, modern managerial practices, and integration into global production networks. Nguyen et al. (2024) emphasize that FDI in the Asia-Pacific region serves not only as additional capital but also as a catalyst for increased production efficiency, modernization of economic infrastructure, and the creation of new economic opportunities. This demonstrates that the volume of investment, whether domestic or foreign, serves as an indicator reflecting an economy's capacity to attract and utilize capital optimally. In this context, the magnitude of incoming investment reflects investors' confidence in political stability, the quality of regulations, the effectiveness of fiscal and monetary policies, and a region's long-term growth potential. Jeon et al. (2023) also note that investment dynamics are highly sensitive to changes in production costs, demand levels, and economic uncertainty, leading firms to adjust their investment plans in response to shifts in the external environment. Thus, investment levels reflect the complex interplay of structural, institutional, and market factors, which collectively determine the direction of economic development.

Research Design and Methodology

This study employs a quantitative research design with an explanatory approach to test the influence of wages, inflation, economic growth, and investment levels on employment opportunities in Makassar. This approach was chosen because it can explain causal relationships among variables through numerical measurements and objective statistical analysis. Explanatory quantitative research also allows researchers to systematically test hypotheses based on time-series data published by official government agencies. The population in this study comprises all macroeconomic data for the City of Makassar on wages, inflation, economic growth, investment levels, and employment opportunities. The research sample was determined using a saturated sampling technique, in which all available data from the study period were used in full. The sample consists of annual data from 2013 to 2022, published by the Central Statistics Agency (BPS) of Makassar City, the official agency responsible for collecting and providing public data.

This study uses secondary data from the BPS of Makassar City's official publications and other relevant statistical documents. Data collection was conducted through literature review and documentary research without using direct measurement instruments on respondents. Data validity is ensured by using official government sources that have undergone statistical verification and standardization. The data were analyzed using multiple linear regression to test the simultaneous and partial effects of the four independent variables on employment opportunities. Before the regression analysis was conducted, the data were tested for a series of classical assumptions, including normality, multicollinearity, heteroscedasticity, and autocorrelation, to ensure the model's suitability. Subsequently, hypothesis testing was performed using the F-test, t-test, and coefficient of determination (R^2). The regression model used is: $Y = a + b1X1 + b2X2 + b3X3 + b4X4 + e$, where Y represents employment opportunities and X1–X4 are the independent variables under study.

Findings and Discussion

Findings

Normality Test

Table 1. Normality Test

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		10
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	.07737434
Most Extreme Differences	Absolute	.194
	Positive	.117
	Negative	-.194
Test Statistic		.194
Asymp. Sig. (2-tailed)		.200[c,d]

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.
d. This is a lower bound of the true significance.

Based on Table 1, the Kolmogorov-Smirnov normality test yielded a p-value of 0.200, which is greater than 0.05; therefore, the research data are normally distributed.

Multicollinearity Test

The VIF values and tolerance values for each research variable are as follows:

1. The VIF value for the wage rate variable is 1.887 < 10, and the tolerance value is 0.324 > 0.10, so the variable is determined to show no signs of multicollinearity.
2. The VIF value for the inflation variable is 4.073 < 10, and the tolerance value is 0.246 > 0.10; therefore, the variable is deemed to show no signs of multicollinearity.
3. The VIF value for the economic growth variable is 8.759, which is less than 10, and the tolerance value is 0.426, which is greater than 0.10; therefore, the variable is deemed to show no signs of multicollinearity.
4. The VIF value for the inflation rate variable is 2.620 < 10, and the tolerance value is 0.382 > 0.10; therefore, the variable is determined to show no signs of multicollinearity.

Heteroscedasticity Test

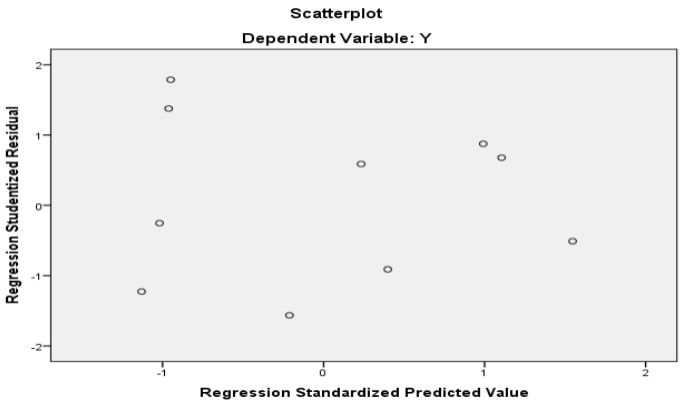

Figure 1. Heteroscedasticity Test

Based on the results in Figure 1, the SPSS output (scatterplot) shows that the data points are randomly distributed and do not form a clear pattern. Data points are scattered both above and below the zero line. Therefore, it can be concluded that there is no heteroscedasticity in the

regression model, and it is suitable for predicting employment opportunities based on its independent variables.

Autocorrelation Test

Table 2. Autocorrelation Test (Model Summary)

Model	R	R Square	Adjusted R-Square	Std. Error of the Estimate	Durbin-Watson
1	.987[a]	.975	.954	.10381	3.185

a. Predictors: (Constant), X4, X2, X3, X1
b. Dependent Variable: Y

Table 2 shows that the Durbin-Watson statistic for this study is 3.185. Before determining its value, we must first determine whether it falls within the range of DU. The DU value is obtained from the Durbin-Watson table; for k = 4 and N = 10, it is 2.4173. Using the formula DU < DW < 4 - DU / DL, we have DU < DL < 4 - DL. Since the DW value falls between DL and 4 - DL (0.3760 < 3.185 < 3.624), this does not yield a definitive conclusion.

Multiple linear regression test

Table 3. Multiple linear regression analysis (Coefficients[a])

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.802	.548		3.289	.022		
	X1	-.099	.036	-1.260	-2.733	.041	.324	1.887
	X2	.069	.033	.299	2.077	.092	.246	4.073
	X3	5.746E-6	.000	2.327	5.244	.003	.426	8.759
	X4	3.458E-9	.000	.175	1.514	.191	.382	2.620

a. Dependent Variable: Y

The formulation of the multiple linear regression equation is as follows:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + e$$
$$Y = 1{,}802 - 0{,}099X_1 + 0{,}069X_2 + 0{,}000005746X_3 + 0{,}000000003458X_4$$

Info:
Y = Job opportunities
a = Constant
$b_1 - b_4$ = Regression coefficient
X1 = Wages
X2 = Inflation
X3 = Economic growth
X4 = Total investment
e = Standard error

The results of the multiple linear regression equation in Table 3 can be explained as follows:

1. Constant Value (β)
   A constant value of 1.802 means that if the wage rate (X1), inflation (X2), economic growth (X3), and investment (X4) are constant or equal to 0, then employment (Y) is equal to 1.802
2. The regression coefficient for wage levels is -0.099, indicating that every increase in wage levels leads to a 0.099 decrease in employment opportunities in Makassar. The relationship between wage levels and employment opportunities is negative.
3. The inflation regression coefficient (X2) is 0.069, indicating that a 1% increase in inflation (X2) leads to a 0.069 increase in employment opportunities (Y).

4. The regression coefficient for economic growth (X3) is 0.000005746, indicating that a 1% increase in economic growth (X3) results in a 0.000005746 increase in employment opportunities (Y).
5. The regression coefficient for total investment (X4) is 0.000000003458, indicating that a 1% increase in total investment (X4) leads to a 0.000000003458 increase in employment opportunities (Y).

t-test

Based on the results of the t-tests in Table 3, analyzed in SPSS, we can explain, in a structured manner, how each independent variable influences employment opportunities (Y). First, the wage level variable (X1) shows a significant value of 0.041. This value is smaller than the significance threshold of 0.05, so the first hypothesis is accepted. This means that wage level has a significant effect on employment opportunities. This result is further supported by the t-test, in which the calculated t-value of 2.733 exceeds the critical t-value of 2.570. Thus, the analysis consistently concludes that wage level has a significant effect on employment opportunities.

Second, the inflation variable (X2) yields a significance value of 0.092. Since this value exceeds the significance level of 0.05, the second hypothesis is rejected. This means inflation does not significantly affect employment opportunities. The same is indicated by the calculated t-value of 2.077, which is smaller than the critical t-value of 2.570; thus, statistically, inflation does not make a significant contribution to the variation in employment opportunities.

Third, the economic growth variable (X3) yields a p-value of 0.003, which is well below the 0.05 threshold. Therefore, the third hypothesis is accepted, and it is concluded that economic growth significantly affects employment opportunities. This result is supported by the calculated t-value of 5.244, which exceeds the critical t-value of 2.570, thereby indicating a significant effect of economic growth on employment opportunities. Fourth, the investment volume variable (X4) shows a significant value of 0.191. Since this figure exceeds 0.05, the fourth hypothesis is rejected, meaning that investment volume does not have a significant effect on employment opportunities. This analysis aligns with the calculated t-value of 1.514, which is smaller than the critical t-value of 2.570, thus confirming that investment does not contribute significantly to changes in employment opportunities in the research model.

Test of the Coefficient of Determination (R2)

Table 4. Coefficient of Determination (R^2)

Model Summary

Model	R	R Square	Adjusted R-Square	Std. Error of the Estimate
1	.987[a]	.975	.954	.10381

a. Predictors: (Constant), X4, X2, X3, X1

b. Dependent Variable: Y

Based on the SPSS "Model Summary" output table in Table 4, the coefficient of determination is 0.975. This means that wage levels, inflation, economic growth, and investment levels explain 97.5% of the variation in employment opportunities in Makassar City. Variables outside the model explain the remaining 2.5% of the variation under study.

Simultaneous Test

Table 5. F-test

ANOVA[a]

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	2.068	4	.517	47.976	.000[b]
Residual	.054	5	.011		
Total	2.122	9			

a. Dependent Variable: Y
b. Predictors: (Constant), X4, X2, X3, X1

Based on Table 5, the F-test yields an F-value of 47.976 and a significance level of 0.000. Since the p-value is 0.000 < 0.005, the regression model indicates that the independent variables—namely wages, inflation, economic growth, and investment—have a simultaneous effect on employment opportunities.

Discussion

The Effect of Wage Levels on Employment Opportunities

Research findings indicate that wage levels significantly affect employment opportunities in Makassar. These findings suggest that changes in wage levels are closely linked to labor market dynamics, particularly regarding companies' ability to hire workers. In practical terms, wage increases often create new pressures on the business sector, especially for companies with cost structures sensitive to wage changes. When wages rise, companies' production costs also increase, prompting them to reassess their labor needs. In many cases, companies respond to these conditions by reducing their workforce or holding back on recruitment expansion. Consequently, high wage levels can reduce employment opportunities, particularly in labor-intensive sectors.

This outcome can be understood through a fundamental concept in labor economics: a company's decision to hire labor depends heavily on the balance between wage costs and labor productivity. According to labor demand theory, a company will expand its labor needs only if the additional labor generates more value than the costs it incurs. When wages rise, achieving that added value becomes more difficult, so firms tend to cut costs by optimizing existing workers' productivity, adopting more efficient technologies, or restructuring their workforce. This theory helps explain why wage increases can reduce employment opportunities, particularly in low-efficiency sectors or those reliant on low-cost labor.

These research findings align with the Classical Economic Theory of Labor Demand, which explains that firms' demand for labor decreases as wages rise (Marshall, 1890). Within this theoretical framework, labor is viewed as a factor of production that must be adjusted according to costs and the level of productivity generated. When wages rise, firms face higher marginal labor costs and must adjust to maintain production efficiency. These adjustments are typically achieved by reducing the workforce, delaying recruitment expansion, or replacing labor-intensive processes with more cost-effective technologies or mechanization. Wage increases can reduce labor demand because firms will retain workers only as long as their marginal productivity exceeds the wages they must pay. In situations where productivity gains do not accompany wage increases, firms tend to restructure their labor use to maintain profitability and operational sustainability. These research findings are also consistent with the results of a previous study by Wildan (2018), which showed that wage dynamics are significantly related to employment opportunities, with wage changes directly influencing labor absorption rates across sectors. These findings are reinforced by Rasulong & Syam (2024), who also found that wage levels significantly influence employment opportunities. However, the direction of this influence may vary with industry characteristics and the structure of the regional labor market. The similarity of findings across these various studies indicates that the influence of wages on employment opportunities is not a localized phenomenon or limited to specific contexts, but rather a general trend in labor market dynamics.

The Impact of Inflation on Employment Opportunities

The study's results show that inflation does not significantly affect employment opportunities in Makassar. These findings indicate that changes in the inflation rate are insufficient to affect companies' ability to hire workers. In essence, inflation reflects a sustained general rise in prices and often creates uncertainty in economic activity. In the context of this study, the insignificance of inflation's impact can be understood through the mechanism that companies do not immediately respond to price changes by adjusting their labor force structure, especially when inflation fluctuations do not drastically affect production costs or directly impact labor cost components. Thus, inflation

during certain periods may not be substantial enough or relevant enough to influence employment dynamics. The results of this study also indicate a negative relationship between inflation and employment, although it is not statistically significant. This negative relationship can be understood by noting that when inflation rises, particularly at high levels, investors and business operators become more cautious in their investment decisions. Uncontrolled price increases can lead to higher production costs, including raw materials and other operational expenses. When overall costs rise, businesses will postpone expansion and scale back hiring plans. At higher inflation rates, investors tend to shift capital to safer sectors or postpone investment, thereby reducing labor demand. This suggests that inflation could suppress employment opportunities if it reaches levels that disrupt cost stability and reduce investment interest.

Theoretically, the relationship between inflation and employment can be explained by the Phillips Curve framework, which posits a short-term trade-off between inflation and unemployment. However, this theory also asserts that in the long run, inflation does not always affect the unemployment rate because economic agents' expectations have adjusted to price changes. In this context, when inflation remains at a level that economic agents can still manage, firms tend to maintain their workforce capacity and avoid significant adjustments. Thus, this theory supports the research finding that inflation is not always the primary determinant of employment opportunities, particularly when business operators have already adjusted their expectations regarding price increases. This explains why the inflation observed during the study period did not typically exert pressure on firms to reduce their workforce. These findings align with prior research by Desidaria et al., which showed that inflation does not significantly affect employment opportunities. These results confirm that inflation is not a direct factor determining a region's ability to absorb labor. The study by Desidaria et al. provides empirical evidence that changes in inflation often do not directly affect labor recruitment, especially when other factors, such as wages, productivity, fiscal policy, and the overall structure of the labor market, have more influence on firms. The consistency of these findings is reinforced by Ariska et al. (2021), who also reported that inflation does not significantly affect employment opportunities across several sectors, suggesting that price fluctuations are not always a primary consideration for businesses when determining labor needs.

The Impact of Economic Growth on Employment Opportunities

The research findings indicate that economic growth has a significant impact on employment opportunities in Makassar. These findings suggest that an increase in the region's economic capacity directly affects the labor market's ability to absorb workers. Substantively, economic growth reflects increased production activity, industrial sector development, and rising demand for goods and services. As the regional economy grows, companies face increased demand, necessitating additional labor to maintain the smooth operation of production processes. In this context, economic growth is the primary driver of job creation, as economic expansion cannot proceed without adequate human resources. This is why increased economic growth in a region is typically followed by more job opportunities. Research findings can also be analyzed using the aggregate demand and aggregate supply framework. As economic growth increases, aggregate demand rises because household income grows and consumption increases. To meet this surge in demand for goods and services, companies must boost production, and increased production almost always requires additional labor. Furthermore, robust economic growth reflects more stable business conditions, leading the business sector to feel more confident about expanding operations and hiring new workers. In other words, economic growth fosters a conducive business climate, reduces uncertainty and risk, and encourages companies to expand production.

This relationship can be explained through the Endogenous Economic Growth Theory, which emphasizes that economic activity is influenced by internal factors such as capital accumulation, productivity gains, innovation, and human resource development. In this theory, economic growth is viewed not only as a macroeconomic phenomenon but also as a process that influences the structure of the labor market. As investment increases and productivity improves, firms expand their operations and create new demand for labor. Economic growth thus becomes a crucial factor in strengthening labor market absorption, as sustained growth drives increased output and expands opportunities for

the public to secure decent employment. This theory provides a strong conceptual foundation for explaining research findings, where rising economic growth is positively associated with increased employment opportunities. These research findings align with the study conducted by Gunadi (2022), which demonstrates that economic growth has a positive and significant impact on employment opportunities. These results confirm that increased economic growth can drive the expansion of production activities, boost labor demand, and create new jobs across various sectors of the economy. In this context, economic growth acts as a catalyst, stimulating increased production capacity, strengthening investment in the real sector, and boosting firms' demand for labor as market demand for goods and services grows. This alignment of findings is not limited to Gunadi's study; it is further supported by Wildan's (2018) research, which reported that economic growth has a positive and significant influence on labor absorption. Wildan (2018) asserts that regions with growing economic activity exhibit greater labor absorption elasticity, particularly in productive sectors that require additional labor to meet rising demand. Furthermore, the study by Sulistiyanti et al. (2023) also found that economic growth has a significant impact on the industrial and service sectors, although this effect is sector specific.

The Impact of Investment on Employment Opportunities

The results of this study show that investment does not have a significant effect on employment opportunities. These findings indicate that increased investment in the study area does not automatically lead to greater labor absorption. Conceptually, investment is the allocation of capital to increase an economy's production capacity. However, the impact of investment on the labor market depends heavily on the composition of investment, the productivity of the sectors receiving investment, and the technology used in the production process. In this context, increased investment does not always create additional labor demand if the capital invested is allocated primarily to capital goods, high-tech machinery, or non-productive assets. When investment is more oriented toward modernizing production equipment, firms tend to reduce labor use as production processes become increasingly automated and efficient. This situation indicates that a capital-intensive investment structure is often inconsistent with increased employment opportunities, particularly when the sectors receiving investment favor technologies that replace human labor rather than expand the workforce.

Theoretically, this finding can be explained by the Theory of Labor Demand Elasticity with Respect to Capital, which asserts that the relationship between capital and labor depends heavily on production characteristics. If investment is directed toward labor-substituting technology, a capital increase will not be accompanied by an increase in labor. Conversely, if investment is directed toward labor-intensive sectors, labor absorption will increase. In this study, the results indicate that investment has no effect, suggesting that the investment structure in the study area is more capital-intensive. Furthermore, most investors tend to allocate funds to passive, unproductive assets, such as land or non-operational properties. This phenomenon aligns with the view that unproductive investment does not expand production capacity and thus does not create new labor demand. The implication of this finding is the importance of policies that encourage investment in sectors with greater potential for labor absorption, such as manufacturing, productive SMEs, or labor-intensive service sectors. Without clear policy direction, investment tends to flow into sectors that offer long-term financial returns but do not make a significant contribution to job creation. The results of this study are also consistent with several previous studies. Desideria et al. (2019) found that investment does not have a significant effect on employment opportunities, particularly when it is primarily used to purchase capital goods and does not directly create new jobs. These findings are reinforced by Wati & Juanda (2024), who demonstrated that investment in certain regions does not contribute to labor absorption due to the low effectiveness of incoming investment and the dominance of investment directed away from productive sectors. This study confirms that increased investment will not positively affect employment opportunities if a region's economic structure remains dominated by speculative or capital-intensive investment.

Conclusion

This study aims to analyze the impact of wage levels, inflation, economic growth, and investment on employment opportunities in Makassar over the past ten years. Based on the data analysis and discussion, this study provides an empirical overview of the dynamics of macroeconomic factors affecting employment opportunities in the region. Overall, this study confirms that employment opportunities are influenced by the structural conditions of the regional economy, with the analyzed variables exhibiting varying relationships depending on local economic characteristics, labor market structure, and regional economic policy patterns.

The primary contribution of this study lies in mapping the relationship between macroeconomic indicators and employment opportunities, highlighting that each variable has distinct consequences for labor market dynamics. This study contributes to the development of labor economics, particularly in developing regions undergoing ongoing structural transformation. From a practical and policy perspective, this study provides an empirical foundation for local governments to design more adaptive wage policies, maintain inflation stability, optimize economic growth policies, and direct investments toward productivity-based and labor-intensive initiatives. These findings underscore the importance of integrated regional economic policies to ensure sustainable job creation and that economic growth directly benefits the community. This study has several limitations that should be considered when interpreting the results. It relies solely on secondary data spanning ten years, which may not fully capture long-term structural dynamics or sudden shifts in the labor market. Additionally, this study focuses on a single region, so the findings cannot be generalized without considering the characteristics of other regions. Future research is recommended to expand the geographical scope, include additional variables such as labor productivity, educational quality, industrialization, or fiscal policy, and employ panel data approaches or more complex econometric models to achieve a more comprehensive understanding. Future research could also incorporate sectoral analysis to gain a deeper understanding of the relationship between investment, economic growth, and employment opportunities, tailored to the distinct characteristics of different economic sectors.

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