DETERMINANTS OF LOCAL REVENUE IN BANYUMAS REGENCY

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Abstract

This research aims to analyze the influence of macroeconomic variables referring to population, inflation, and the open unemployment rate (*TPT*), on local own-source revenue (*PAD*) in Banyumas Regency, which shows a relatively low contribution of only 24% to total regional income in 2024. Over the past decade, the declining trend in *PAD* performance highlights the suboptimal utilization of the region's fiscal potential and continued dependence on central government transfer funds. A quantitative descriptive approach was applied using multiple linear regression analysis on secondary data from 2007 to 2024 (excluding 2016), sourced from the Central Statistics Agency, budget realization reports, and relevant local government documents. The results indicate that, simultaneously, population, inflation, and *TPT* significantly affect *PAD*. However, partially, only population and *TPT* have significant effects on *PAD*, while inflation does not show a significant impact. These findings emphasize the importance of formulating a more targeted strategy for managing local taxes and levies, including intensification, extensification, and digitalization of the collection system, as well as adopting adaptive measures to respond to macroeconomic dynamics to optimize regional revenue and strengthen the fiscal independence of Banyumas Regency sustainably.

Keywords: Local Own-Source Revenue (*PAD*), Population, Inflation, Open Unemployment Rate (*TPT*)

INTRODUCTION

The ability of local governments to generate their own revenue (*PAD*) is a key indicator of fiscal independence and the success of regional autonomy (Carunia, 2017; Utomo & Juaini, 2023). According to Law No. 1 of 2022 on Financial Relations between the Central and Regional Governments, *PAD* consists of regional taxes, retributions, income from regional assets, and other legitimate revenues. Optimizing *PAD* is crucial to support development financing and improve public service quality (Ohta et al., 2021). Banyumas Regency, located in Central Java Province, is the third most populous region in the province with 1,847,097 residents and a density of about 1,400 people/km² as of 2024 (BPS Banyumas, 2024). Despite this, *PAD* contributed only about 24% to the total regional revenue of IDR 3.79 trillion in 2024, while 75% was still sourced from central government transfers (Budget Realization Report, 2024).

Table 1. Banyumas Regency *PAD* Budget and Realization (2015–2024)

Year	*PAD* Budget (in thousands of IDR)	*PAD* Realization (in thousands of IDR)	Performance Achievement
2015	385.677.609	502.074.910	130,18%
2016	450.492.114	541.418.386	120,18%
2017	571.033.168	619.701.627	108,52%
2018	630.770.637	648.326.914	102,78%
2019	661.437.503	686.805.512	103,84%
2020	633.302.968	668.211.148	105,51%
2021	754.636.864	761.991.440	100,97%
2022	864.151.372	822.685.992	95,20%
2023	870.559.278	854.942.206	98,21%
2024	947.208.870	903.571.683	95,39%

Source: BPS and Draft Regional Regulations of Banyumas Regency, 2015–2024 (processed data)

Table 1. shows the performance of Banyumas Regency's *PAD* from 2015 to 2024, indicating a nominal increase in revenue over the years. However, the *PAD* performance rate has shown a declining trend, from 130.18% in 2015 to only 95.39% in 2024. This indicates that the region's fiscal potential is not yet fully utilized. Key macroeconomic factors believed to influence *PAD* include total population, inflation, and open unemployment rate (Nisa & Bahari, 2022).

A larger population can expand the tax base and stimulate economic activity (Oktiani, 2021), but without sufficient employment opportunities, it can lead to increased unemployment and lower tax compliance (Rachman & Restiatun, 2023). Uncontrolled inflation can reduce purchasing power and real tax revenue, although moderate inflation may boost revenue through higher transaction values (Mankiw, 2021). In Banyumas, inflation rose from 1.90% in 2020 to 6.49% in 2022, then fell to 1.51% in 2024 (BPS Banyumas, 2024). Meanwhile, the *TPT* declined from 6.65% in 2020 to 6.18% in 2024, indicating a slight improvement in employment.

Previous studies have shown mixed results regarding the influence of these variables on *PAD*. Some found population and *TPT* had significant effects, while others did not (Fahriza et al., 2022; Doni, 2019; Priyono, 2021; Sihombing & Sihombing, 2022). This study addresses the research gap by focusing specifically on Banyumas Regency, aiming to provide a more comprehensive understanding of the macroeconomic determinants of *PAD* in this region.

This study aims to examine the effect of population size, inflation, and the open unemployment rate (*TPT*) on Local Own-Source Revenue (*PAD*) in Banyumas Regency. Based on previous studies, there are still several research gaps, including the lack of studies that specifically focus on the conditions in Banyumas Regency, as well as the inconsistency of findings regarding the relationship between population, inflation, and *TPT* with *PAD*. Therefore, this study is expected to provide a more comprehensive insight into the macroeconomic factors affecting *PAD*, and can serve as a basis for local governments in formulating more targeted policies to increase *PAD*—for instance, through controlling the unemployment rate by creating new job opportunities and maintaining inflation stability that supports the community's ability to fulfill their tax obligations.

LITERATURE REVIEW AND HYPOTHESIS FORMULATION

According to Law Number 1 of 2022 on Financial Relations between the Central Government and Regional Governments, fiscal decentralization aims to enhance regional financial independence in development financing through the optimization of *PAD* and reduce dependence on central government transfer funds. *PAD* is revenue generated by local governments through governance, service provision to the public, and management and utilization of regional resources (Nugraheni et al., 2019). *PAD* serves as an indicator of regional economic performance because it is sourced entirely from local revenue without relying on central or external assistance (Simbolon et al., 2023).

Population refers to individuals residing in a geographical area for at least six months, or those staying less than six months but intending to settle permanently (BPS, 2020). Musgrave's theory (1989) states that population size significantly affects tax revenue, which in turn directly influences *PAD*, as regional taxes are one of its primary sources (Prasetyo & Bawono, 2022).

According to Samuelson & Nordhaus, inflation is a condition where there is a general and continuous increase in prices in an economy (Priyono, 2021). It does not refer to a rise in prices of just one or two goods but reflects overall changes in the average price level (Susanto, 2014). Uncontrolled inflation reduces real income, weakens purchasing power, and creates economic instability, ultimately suppressing *PAD* potential (Priyono, 2021). Conversely, when controlled, inflation can increase *PAD* through the rising prices of goods and services, which in turn boost tax revenues (Oktiani, 2021).

TPT (Open Unemployment Rate) is the percentage of the labor force that is unemployed, including job seekers, those preparing businesses, discouraged workers, and those waiting to start a job (BPS, 2025). A rising *TPT* lowers people's ability to fulfill tax and levy obligations, reducing *PAD* (Rachman & Restiatun, 2023). High *TPT* weakens regional consumption demand, while low *TPT* reflects higher income and consumption levels, potentially increasing *PAD* (Azizah & Asmara, 2023).

RESEARCH METHODS

This study employs a quantitative associative approach, aiming to analyze the influence of population, inflation, and the open unemployment rate (*TPT*) on Local Own-Source Revenue (*PAD*) in Banyumas Regency. The quantitative approach is chosen because the research focuses on testing hypotheses statistically using numerical time-series data. The population of the study consists of annual data on *PAD*, population, inflation, and *TPT* in Banyumas Regency for the period 2007 to 2024, excluding the year 2016 due to unavailable data. The research utilizes a census method by taking all available annual data during the period as the sample, resulting in a total of 17 years of observational data. Data collection is conducted through documentation techniques by obtaining secondary data from the Central Statistics Agency (BPS) of Banyumas Regency, budget realization reports of the Banyumas Regency Government, and other relevant official documents. The data obtained are compiled in a time-series format. The data analysis method uses multiple linear regression, supported by classical assumption tests including tests for normality, multicollinearity, heteroscedasticity, and autocorrelation. In addition, statistical tests such as the t-test are used to determine the partial effect of each independent variable on *PAD*, the F-test is used to assess the simultaneous effect of the independent variables, and the coefficient of determination (R^2) is employed to measure the extent to which the independent variables explain the variation in *PAD*. All data processing and statistical testing are carried out using the EViews software.

RESULTS AND DISCUSSION

A. Results

Classical Assumption Test

Prior to conducting the regression analysis, classical assumption tests were performed to ensure that the model met the necessary statistical requirements. The normality test, using the Jarque-Bera method, produced a probability value of 0.084857. Since this value is greater than the significance level of 0.05, it can be concluded that the residuals are normally distributed. The multicollinearity test was conducted by examining the Variance Inflation Factor (VIF) values for each independent variable. The results show that the VIF for population was 1.66, for inflation was 1.45, and for the open unemployment rate (*TPT*) was 1.19. As all values are below the threshold of 10, it can be concluded that multicollinearity is not present in the model. The heteroscedasticity test, conducted using the Breusch-Pagan-Godfrey method, resulted in a probability value of 0.2500, which is greater than 0.05. This indicates that the model does not exhibit heteroscedasticity, meaning the variance of the residuals is constant across observations. The autocorrelation test, using the Breusch-Godfrey Serial Correlation LM Test, produced a probability value of 0.2906. Since this value exceeds the 0.05 significance level, it can be concluded that there is no autocorrelation in the residuals. Based on the results of these four classical assumption tests, the regression model satisfies the requirements for normality, no multicollinearity, homoscedasticity, and no autocorrelation.

Multiple Linear Regression Analysis

Following the classical assumption tests, multiple linear regression analysis was conducted to evaluate the effect of population, inflation, and the open unemployment rate (*TPT*) on local own-source revenue (*PAD*) in Banyumas Regency. The estimated regression equation is as follows:

$$\boldsymbol{PAD_t} = -\mathbf{2,931,454,744} + \mathbf{2,220.109}\boldsymbol{JP_t} - \mathbf{2,427,934}\boldsymbol{INF_t} - \mathbf{50,799,591}\boldsymbol{TPT_t} \quad (1)$$

The results of the regression analysis using the EViews application with the multiple linear regression model reveal several key findings. First, population, inflation, and *TPT* simultaneously have a impact on *PAD* in Banyumas Regency. The results of the partial test (t-test) indicated that population affects *PAD*. Similarly, *TPT* also affects *PAD*. However, inflation does not show any effect on *PAD*. The coefficient of determination (R^2) was found to be 0.9026, indicating that 90.26% of the variation in *PAD* can be explained by the independent variables included in the model. The remaining 9.74% is attributable to other factors not captured in the model.

B. Discussions

1. The Effect of Population, Inflation, and *TPT* Simultaneously on *PAD*

   The results of the multiple linear regression analysis show that population, inflation, and the open unemployment rate (*TPT*) simultaneously affect local own-source revenue (*PAD*) in Banyumas Regency. A larger population expands the tax base and increases demand for public services, while stable inflation maintains purchasing power and economic activity. A lower *TPT* indicates better employment conditions, contributing to *PAD* through productive economic participation. These findings confirm that macroeconomic conditions influence *PAD* performance, and thus, the local government should consider these variables in developing strategies to enhance regional revenue.

2. The Effect of Population on *PAD*

   The results of the multiple linear regression analysis show that population has an effect on local own-source revenue (*PAD*) in Banyumas Regency. This is supported by a consistent trend between population growth and *PAD* realization during the observation period. As the population increased, *PAD* also tended to rise, reflecting greater economic activity and a broader tax base. In 2024, when the population reached its highest level at 1,847,097 people, several major revenue components such as BPHTB, PBB-P2, restaurant tax, and health service retributions also recorded significant increases. These outcomes is supported by Musgrave's theory (1989), which states that a larger population enhances the potential for tax revenue through the expansion of economic actors and taxpayers.

This finding is in line with previous studies by Prana (2016), Oktiani (2021), Altin et al. (2021), Priyono and Handayani (2021), and Rachman and Restiatun (2023), which show that population growth contributes to the rise in *PAD*. An increasing population boosts demand for public services and goods, stimulates business development, and expands both formal and informal sectors. However, population growth must be accompanied by sufficient resources and infrastructure. Without this balance, per capita income and purchasing power may decline, ultimately reducing *PAD*. On the other hand, a large, productive, and well-distributed population can serve as a key driver for regional development and revenue enhancement.

3. The Effect of Inflation on *PAD*

The results of multiple linear regression analysis show that inflation does not affect Local Original Income (*PAD*) in Banyumas Regency. Although inflation is theoretically considered a macroeconomic factor that can affect fiscal capacity through changes in the real value of taxable transactions, this effect was not found in this study. Trend analysis shows that there is no consistent relationship between the inflation rate and *PAD* realization. For example, in some periods, an increase in inflation is followed by a decrease in *PAD*, and in other periods, *PAD* actually continues to increase when inflation is low. This shows that inflation fluctuations do not directly affect the performance of regional *PAD*. These results are consistent with research by Batik (2013), Altin et al. (2021), Oktiani (2021), and Rahmawati et al. (2024), which found similar results. A possible explanation is that the *PAD* structure in Banyumas is highly dependent on revenue sources that are not very sensitive to changes in market prices.

4. The Effect of *TPT* on *PAD*

The results of the regression analysis indicate that the open unemployment rate (*TPT*) affects local own-source revenue (*PAD*) in Banyumas Regency. This finding is consistent with Keynesian theory, which posits that unemployment is primarily caused by low aggregate demand rather than wage imbalances. A decline in demand for goods and services leads businesses to reduce production and halt recruitment, resulting in higher unemployment. Consequently, household consumption decreases, which negatively impacts regional income from taxes and levies, as unemployed individuals have limited capacity to pay taxes or utilize public services.

This result aligns with the study by Pujiyanto et al. (2025), which found that the unemployment rate in Banyumas affects food security indicators related to household purchasing power. When people have stable income, their consumption increases, indirectly contributing to *PAD*. Although limited research has examined the effect of *TPT* on *PAD*, this finding adds value to regional economic literature by showing that unemployment not only affects social welfare but also regional fiscal health. These conditions lead to a direct decline in *PAD* through reduced income, weaker tax compliance, and decreased demand for public services.

CONCLUSION

This study concludes that population, inflation, and open unemployment rate (*TPT*) simultaneously affect local revenue (*PAD*) in Banyumas Regency. In partial testing, population and *TPT* each affect *PAD*, while inflation does not affect *PAD*. The results of this finding help the Banyumas Regency government to consider population growth and increased employment as the main drivers of *PAD*, through strategies such as job creation, service improvement, and tax base optimization. This study is limited by the unavailability of *TPT* data for 2016 and the exclusion of certain local revenue components due to data inconsistencies and outliers, which may have limited the full scope of the analysis of *PAD* potential. Future research can explore other macroeconomic variables that can affect *PAD*, and apply other methods to gain deeper insight into the factors that influence local revenue performance.

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