CONVERGENCE : THE JOURNAL OF ECONOMIC DEVELOPMENT
Vol.6, No.2, pp.184-203, December 2024.

e-ISSN 2721-625X
ISSN 2721-6330

THE IMPACT OF TAXATION AND POPULATION ON ECONOMIC GROWTH IN MALUKU PROVINCE: AN EMPIRICAL ANALYSIS

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ABSTRACT

This study aims to examine the influence of population size and tax variables on economic growth in Maluku Province, Indonesia. The study employs a descriptive quantitative method utilizing secondary data obtained from the Central Bureau of Statistics of Maluku Province, consisting of time series data from 2002 to 2022. The data were analyzed using a multiple linear regression model with the assistance of EViews 9 software. The results of the study show that, partially, population has a positive effect on economic growth in Maluku Province, while taxes have a negative effect on economic growth in in Maluku Province. The model exhibits a high explanatory power, with an R^2 value of 95.6%, indicating that the interplay between population dynamics and fiscal policy substantially accounts for variations in economic performance. These results underscore the necessity for integrated policy approaches that leverage demographic potential while addressing fiscal inefficiencies. Accordingly, the study recommends strategic investments in human capital development, tax administration reform, and infrastructure tailored to the province's archipelagic geography. Such measures are imperative for fostering inclusive and sustainable regional growth in the context of Indonesia's diverse economic landscape.

***Keywords** : Economic growth[1], Population[2], Taxes[3]*

ABSTRAK

Penelitian ini bertujuan untuk mengetahui pengaruh variabel jumlah penduduk dan pajak terhadap pertumbuhan ekonomi di Provinsi Maluku, Indonesia. Penelitian menggunakan metode kuantitatif deskriptif dengan data sekunder dari Central Bureau of Statistics Provinsi Maluku berupa data time series tahun 2002 hingga 2022. Data kemudian dianalisis menggunakan model regresi linier berganda dengan bantuan software Eviews 9. Hasil penelitian menunjukkan bahwa secara parsial, jumlah penduduk memiliki pengaruh positif terhadap pertumbuhan ekonomi di Provinsi Maluku, sedangkan pajak memiliki pengaruh negatif terhadap pertumbuhan ekonomi di Provinsi Maluku. Model ini memiliki daya jelas yang tinggi, dengan nilai R^2 sebesar 95,6%, yang mengindikasikan bahwa interaksi antara dinamika kependudukan dan kebijakan fiskal secara substansial menjelaskan variasi kinerja ekonomi. Hasil ini menegaskan perlunya pendekatan kebijakan yang terintegrasi, yang memanfaatkan potensi demografis sembari mengatasi inefisiensi fiskal. Oleh karena itu, penelitian ini merekomendasikan investasi strategis dalam pengembangan sumber daya manusia, reformasi administrasi perpajakan, dan pembangunan infrastruktur yang disesuaikan dengan karakteristik geografis kepulauan. Langkah-langkah ini sangat penting untuk mendorong pertumbuhan regional yang inklusif dan berkelanjutan dalam konteks keragaman ekonomi Indonesia.

***Kata kunci:** Pertumbuhan Ekonomi[1], Penduduk[2], Pajak[3]*

e-ISSN 2721-625X
ISSN 2721-6330

INTRODUCTION

Economic growth is one of the main indicators to assess the success of the development of a region. In Indonesia, Maluku Province is one of the provinces that has unique geographical and demographic characteristics, with more than a hundred islands spread across the eastern region of Indonesia. This situation presents major challenges in natural resource management and infrastructure development that can support inclusive and sustainable economic growth. One of the factors that can affect the rate of economic growth is tax revenue, which serves as the main source of funding for regional development. Optimal tax revenues will support the financing of important sectors such as education, health, infrastructure, and other productive sectors which in turn can boost economic growth.

In addition, the population also plays an important role in determining the economic dynamics of a region. According to economic theory, a large population can increase market demand for goods and services, which can ultimately boost production and economic activity. However, challenges arise when population growth is not balanced with the improvement of the quality of human resources, employment, and adequate public facilities. This can contribute to an increase in poverty and economic inequality in the area. Maluku Province, despite its rich natural resource potential, faces major obstacles in improving the quality of equitable economic development throughout the region. Populations scattered on small islands, with limited infrastructure, often hinder the optimal distribution of economic benefits. In addition, tax revenues that still have not reached their maximum potential can be one of the inhibiting factors in funding various development programs that are crucial for economic growth.

Gradual changes in a country's economic conditions that result in an enhancement of the population's quality of life are regarded as economic growth. Sukirno (2019) stated that a nation’s economic growth has been amplified by primary factors, including the presence of natural resources, population, labor, technological advancements, and tax revenues, which have been instrumental in promoting economic growth. The population constitutes a pivotal element in attempts to augment production and cultivate economic activities. An increase in population has been demonstrated to engender or augment aggregate demand, thereby exerting an influence on the rate of economic growth in a given region. This

e-ISSN 2721-625X
ISSN 2721-6330

phenomenon is exemplified by the rise in population associated with market expansion, which in turn leads to increased specialization in the economy and heightened economic activity.

This increase in activity has been shown to impact the division of labor among workers, thereby contributing to the development of the process of economic growth. Darma (2021) proposed that the population's role in economic growth in Tebo Regency had been identified as a significant factor. Furthermore, the high population can also influence the increase in tax revenue. In Indonesia, this phenomenon has persisted for over two decades (Rosiana & Mahardika, 2017).

Indeed, this condition had also been observed in Nigeria, as evidenced by the study of State (2016), which discloses a substantial relationship between Personal Income Tax Revenue (PITR), Nigerian gross domestic product (GDP), and tax administration. This relationship had been demonstrated to exert a positive and significant impact on Nigeria's economic growth. The success of an increase in tax revenue can contribute to an increase in a country's economic growth. An increase in tax revenue will result in increased government spending, which can in turn stimulate the economy and promote further economic growth. Conversely, Murti (2019) presented a contrasting viewpoint, asserting that taxes exerted a positive and significant influence on Indonesia's economic growth.

Economic growth is the main indicator in assessing the success of a region's development. In the context of regional economics, Gross Regional Domestic Product (GDP) is a quantitative measure used to observe the dynamics of a region's output over a certain period of time. However, GDP growth alone is not enough to show the quality of development if it is not accompanied by an increase in fiscal capacity and the welfare of the community at large. This economic growth is the main indicator that reflects the success of the development of a region in improving the welfare of the community. However, high economic growth rates do not always reflect the quality of inclusive and sustainable growth. This is reflected in the economic dynamics of Maluku Province over the past two decades, where although the Gross Regional Domestic Product (GDP) increased significantly from Rp12.32 trillion in 2002 to Rp33.32 trillion in 2022, fluctuations in economic growth still occurred and even contracted by -0.92% in 2020.

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ISSN 2721-6330

This condition indicates that economic growth is not yet fully stable and is still vulnerable to shocks, both internally and externally. In Maluku Province, although it shows a trend of increasing GDP from Rp12.32 trillion in 2002 to Rp33.32 trillion in 2022, Maluku Province tends to face various structural challenges, especially related to the effectiveness of tax revenues and population growth.

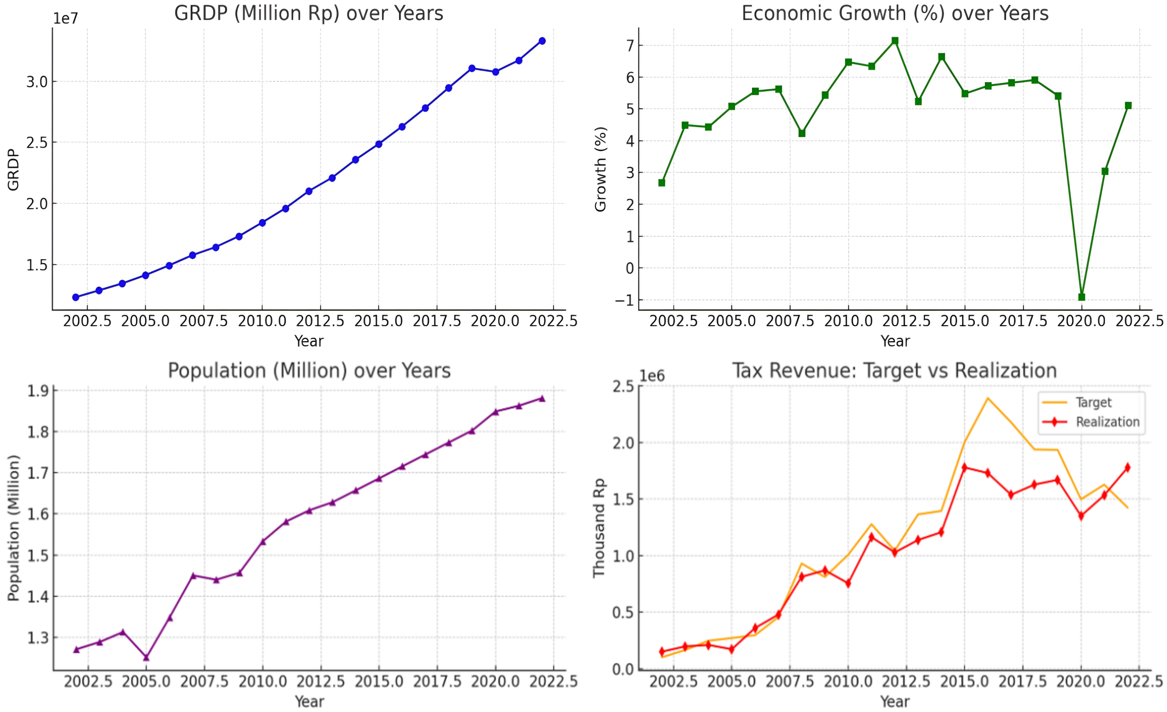

Figure 1: GRDP ADHK 2010, Population, and Taxes in Maluku Province in 2002-2022
Source: Statistics Indonesia of Maluku Province in various years of publication

Over the past two decades, the economic growth of Maluku Province has undergone considerable fluctuations, as evidenced by the GRDP at constant prices. The lowest recorded GRDP in 2002 was IDR 12,322,574.80, while the highest was attained in 2022 at IDR 33,321,870.00. Notably, the economic growth rate of Maluku Province reached 7.15% in 2012. Economic growth exhibits significant variation among regions and countries, with numerous factors contributing to these disparities. A study by Darma (2021) revealed that population dynamics significantly influenced the economic growth of Tebo Regency from 2016 to 2020, with a contribution of 93.7%. Concurrently, the findings of Maulana and Susilowati (2020) indicated that population growth exerted a significant positive effect on economic growth in West Nusa Tenggara Province, where nearly half of the population was engaged in high-productivity-based employment. This

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study by Regina (2022) further underscored the existence of a substantial relationship between population variables and economic growth.

One of the fundamental aspects that also affects this instability is fiscal issues, especially those related to regional tax revenues. The data shows that there is a consistent mismatch between the target and the realization of tax revenue, such as in 2010 where tax realization only reached Rp755 billion from the target of Rp1,007 billion. This inequality indicates the low effectiveness of tax collection and the lack of optimal utilization of the available tax base. In fact, from the perspective of endogenous growth theory, taxes have a crucial role as a source of financing for public spending that can encourage long-term productivity increases. Limited tax revenues directly limit the fiscal capacity of local governments to finance infrastructure development, education, health, and other strategic sectors that are drivers of economic growth.

Conversely, the realization of tax revenue exhibited a notable trend. It consistently exceeded the set targets in 2002 and 2003, but subsequently fell below the targets, displaying a downward trend. The population's annual growth is positively correlated with the number of individuals entering the workforce, which in turn affects the tax revenues. However, the increasing labor force growth is inversely proportional to existing employment opportunities, thereby widening the existing gap (Yogatama & Hidayah, 2022). Problems in tax revenue, both in terms of targets and realization, can have a direct or indirect impact on regional economic growth: The low effectiveness of tax revenue indicates that economic potential has not been fully exploited by the fiscal system. This has led to a reduction in the region's fiscal capacity to finance infrastructure development, public services, and productive investments that support economic growth. When tax targets are too high but unrealistic and ultimately not achieved (as in 2010 and 2017), local governments could face fiscal deficits or dependence on central transfer funds, which in the long run hampered local economic independence. Fluctuations in tax revenues also reflect the instability of the economic base: if the dominant sector does not generate stable fiscal revenues, then economic growth will also tend to be fragile.

Meanwhile, the demographic dynamics of Maluku Province show a significant growth in the number of people, from 1.27 million people in 2002 to 1.88 million people in 2022. In

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theory, an increase in the number of people, especially the productive age, can be the driving force for economic growth through labor expansion, increased consumption, and expansion of the tax base. However, in reality, this increase in population has not been fully converted into a real economic force. This can be seen from the low tax contribution to GDP and the insignificant influence of population growth on the stability of economic growth. This condition shows that population growth without the support of improving the quality of human resources and the absorption of formal labor can actually become a burden on regional economic development.

Wicaksono et al. (2021) similarly demonstrated that Indonesia's population exerted a positive influence on its economic growth. Conversely, the study by Yogatama and Hidayah (2022) pointed that population growth in five ASEAN countries did not exert a significant effect on economic growth, as the population growth rate remained within normal and controlled limits during the study period. Meanwhile, regional tax variables have been shown to exert a positive and significant impact on economic growth (Lianda et al., 2021). However, the findings of the study by Rini and Yulistiyono (2021) actually demonstrated that the tax variable in the long and short term exerted no effect on Indonesia's economic growth. A similar observation was made in Kerinci Regency, where local taxes did not exert a significant influence on economic growth during the 2015-2021 period (Rosi, 2022).

These findings underscore the notion that population size and tax policies do not invariably impact a region's economic growth (Rini & Yulistiyono, 2021; Rosi, 2022; Yogatama & Hidayah, 2022). This suggests that the economic growth of a region possesses its own dynamics, and the efforts of governments to stimulate economic growth vary. Furthermore, with respect to the economic potential of each region, particularly islands, the findings underscore the necessity for a nuanced approach.

As governments work to improve the effectiveness of the tax system and improve the distribution of development, understanding the relationship between taxes, population, and economic growth is essential. Therefore, this study aims to analyze the impact of tax policies and population dynamics on economic growth in Maluku Province. Through in-depth empirical analysis, it is hoped that this study can provide more appropriate policy

e-ISSN 2721-625X
ISSN 2721-6330

recommendations in increasing tax effectiveness and creating inclusive economic growth in Maluku Province. The study also seeks to contribute to the regional economic literature in Indonesia, focusing on aspects that are often overlooked in more general studies. Tracing the relationship between macroeconomic factors such as taxes and population at the provincial level is expected to provide new insights for policy-making that has a greater impact on people's welfare.

LITERATURE REVIEW

The significance of economic growth in ensuring the overall welfare of a region's population is widely recognized. The economic growth of a region or country is typically characterized by an increase in regional economic growth. According to Shakina et al. (2021), economic growth is influenced by two primary factors: human capital and physical capital. The relationship between human capital and economic growth is attributed to the capacity of a larger labor force, which contributes to the augmentation of economic growth. Economic growth is defined as the process of increasing per capita output in the long term, thereby augmenting GDP or real gross national product (GNP) (Sukirno, 2019).

The population of a country can be regarded as a potential input that can be utilized as a factor of production, thereby enhancing the production of goods and services and contributing to the economic development of the country. An increase in the population results in an increase in labor force, according to the Population Theory proposed by David Ricardo. This theory explains that if population growth always increases by twice the rate, it can lead to an oversupply of labor. Consequently, as wages decrease to a level sufficient to cover only the basic needs of subsistence, economic growth stagnates in a state of equilibrium, known as a stationary state. Conversely, when population growth aligns with the development of output, it can stimulate economic growth (Rochaida, 2016).

In the context of economic growth, taxes assume a pivotal role, functioning not only as a primary source of government revenue but also as a policy instrument with the capacity to influence numerous aspects of the economy. The impact of taxes on economic growth manifests through various channels, including government spending, investment, and the incentives provided to the private sector. A research by Crăciun et al. (2023) has

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ISSN 2721-6330

demonstrated that the relationship between taxes and economic growth is intricate and influenced by various factors, including the nature of the tax, the level of government spending, and the broader economic context.

Furthermore, taxes serve as the primary source of state revenue, which is utilized to finance government expenditure. To augment revenue from the tax sector, the government employs various strategies, including local governments implementing phases of local tax reform. The efficacy of these reforms in various regions is evidenced by an augmentation in tax revenue, which in turn exerts an influence on economic growth. To facilitate national development, a development budget from the government is necessary, which can be obtained from taxes to finance regional development. Melni (2019) viewed that taxes are contributions from individuals to the state treasury based on laws (which can be imposed) without the expectation of personal recompense, and can be used to pay for public expenditures. The utilization of taxes for developmental purposes, including infrastructure enhancement and economic growth, is a critical component of a robust taxation system.

The interrelated relationship between tax dynamics, population growth, and economic growth that is not fully optimal in Maluku Province and the ineffectiveness of the tax system and unproductive population growth have the potential to reduce fiscal capacity and slow down the development process. In the framework of long-term development, synergistic efforts are needed to improve tax compliance, expand the tax base, and encourage population productivity in order to create inclusive and sustainable economic growth. Therefore, it is important to conduct empirical analysis of the influence of taxes and population on economic growth in order to produce data-based and contextual policy recommendations, as well as support regional development planning in a more targeted and effective manner.

METHODS

In order to comprehensively assess the impact of population and taxes on economic growth in Indonesia, particularly in Maluku Province, this study employed a descriptive approach within the framework of quantitative research. The utilization of numerical data is instrumental in elucidating contemporary phenomena and past events (Sugiyono, 2013).

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Quantitative research, therefore, can be defined as a methodological framework employed to systematically examine specific populations and samples. The statistical data analysis employed in this study was predicated on the hypothesis that it would facilitate the testing of pre-established hypotheses concerning the impact between variables.

This study utilized secondary data, specifically time series data from 2002 to 2022, which could be obtained from various relevant agencies (Sugiyono, 2013). The data, obtained from Statistics Indonesia (Central Bureau of Statistics Indonesia, Central Bureau of Statistics) of Maluku Province, encompassed regional domestic product, population, tax data, and economic growth data for the province over the past two decades, specifically from 2002 to 2022. According to Sugiyono (2013), the initial phase of conducting research entailed the implementation of data collection techniques, employing the documentation method to facilitate researchers in acquiring data or written documents collected in the form of archives pertinent to the object of research. The data collection techniques in the form of literature also spanned a duration of twenty years.

The data analysis technique employed was multiple linear regression. This analysis aimed to measure the impact of the independent variables on the dependent variable. The analysis included a series of tests to verify the validity of the data. These included the classical assumption test, which tests for normality, multicollinearity, autocorrelation, and heteroscedacity. The multiple linear regression analysis was also employed, as well as statistical tests, including the partial test and the simultaneous test. The mathematical function is as follows:

$$Y = f(X_1, X_2)\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots[1]$$
$$Y = f(population, taxes)\ldots\ldots\ldots\ldots[2]$$

Based on the mathematical function above, the following regression equation is obtained:

$$Y_t = \beta_0 + \beta_1 X_{1t} + \beta_2 X_{2t} + \varepsilon_t\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots[3]$$

The data presented above contains units of analysis that are not uniform or equivalent; therefore, it was necessary to transform the data into an equation as follows:

$$Y_t = \beta_0 + \beta_1 LogX_{1t} + \beta_2 LogX_{2t} + \varepsilon_t\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots[4]$$

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Where, β_0 is constant (intercept), β_1, β_2 is coefficient regression of population and taxes, Y is economic growth, X_1 is population, X_2 is taxes, t is period, and e is error.

Subsequently, the coefficient of determination (R2) was employed to evaluate the extent to which the independent variable (X) exerts impact on the dependent variable (Y). The coefficient of determination can be expressed in percentage form (%). The closer the coefficient value is to zero, the lesser the impact of all independent variables on the dependent variable. Moreover, the coefficient of determination reaches 100%, making all independent variables more influential on the dependent variable.

RESULTS AND DISCUSSION

Classical Assumption Tests

In this research, several classical assumption tests were carried out, namely the normality test, multicollinearity test, heteroscedasticity test, and autocorrelation test. Based on normality test, obtained a value of Jarque-Bera (JB) of 0.309156 with a probability value of 0.856777, which is greater than 0.05. This indicates that the data is normally distributed. Furthermore, Based on the results of the multicollinearity test, obtained a value variance inflation factor (VIF) value for population (X1) is 9.354808 and taxes (X2) is 9.354808, where they are less than 10. This observation suggests the absence of multicollinearity. Meanwhile, the heteroscedasticity test is calculated using Breusch-Pagan-Godfrey (BPG) test. The result of the Chi-Squared test at a 0.6336 prob. level is significant. This value is greater than 0.05, indicating that there is no heteroscedasticity problem in the regression model. Furthermore, based on the autocorrelation test, using Breusch-Godfrey, the probability value of F or Chi-Squared statistic was obtained of 0.0127, where 0.0127 is less than 0.05.

Multiple Linear Regression Analysis

The findings of multiple linear regression analysis, which were used to depict the relationship between the independent variables (population and taxes) and the dependent variable (economic growth), are presented in table 1.

Table 1. Results of Multiple Linear Regression

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-30228364	5941025.	-5.088073	0.0001

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ISSN 2721-6330

Variable	Coefficient	Std. Error	t-Statistic	Prob.
X1	32.95265	4.785893	6.885371	0.0000
X2	-0.016307	1.700226	-0.009591	0.9925

R-Squared: 0.960898

F-statistic : 221.1646

Prob(F-statistic) : 0.000000

Source : data processed (Eviews)

Based on regression result in table 1 shows the results of the regression coefficient (β). The multiple linear regression equation can be formulated as follows:

$$Y_t = -30338464 + 32.95265 X_{1t} - 0.01637 X_{2t} + \varepsilon_t \text{..............................} [5]$$

Statistical Tests Result

In order to determine the extent of the impact that the population and taxes variables exert partially on economic growth in Maluku Province, statistical tests were utilized. In accordance with the data presented in the table 1, the population variable has a t-statistic value of 6.885371 with a probability value of 0.0000, which means < 0.05. Therefore, it can be stated that statistically, the population has a significant and positive impact on economic growth in Maluku Province. This suggests that Ho is rejected and Ha is supported empirically. Meanwhile the impact of taxes (X2) on economic growth (Y) in Maluku Province show that the taxes (X2) have a t-statistic of -0.009591 and a probability value of 0.9925, which is greater than 0.05. This suggests that the taxes do not have a statistically significant negative impact on economic growth in Maluku Province. Consequently, H0 is supported empirically and Ha is rejected.

Then, based on the F test, the value of F-statistic is 221.1646, and probability value is 0.000000, which is less than 0.05. This indicates that the simultaneous impact of population and taxes on economic growth in Maluku Province. Meanwhile,based on Results of Coefficient of Determination (R2) Test, a score of the adjusted R-Squared value is 0.956553, indicating that the independent variables (population and taxes) have a significant impact on the dependent variable (economic growth). This suggests that the independent variables in the model can explain 95.6% of the dependent variable, with the remaining 4.4% being influenced by factors external to the regression model.

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Discussion

Based on the regression results in table 1, the regression coefficient value of population variable (X1) is 32.95265, indicating that a one-person increase in the population results in a 32.95% increase in economic growth. This suggests a positive relationship between the population and economic growth variables in Maluku Province. Economic activities aiming to generate increased income for a society within a certain time period were referred to as economic growth (Mu'arif & Soebagyo, 2023). In fact, to encourage equitable and stable economic growth, local governments must implement clear and planned policies (Marseno & Mulyani, 2020; Widhiari & Merkusiwati, 2015). The historical context of global population growth revealed two major episodes. Until the 18th century, population growth remained relatively slow and steady, with no significant population explosions or contractions. However, a notable shift in trend emerged around 1750, initially in Britain and America, and subsequently spreading to other regions. This period of rapid and sustained population growth led to an eightfold increase in the global population over less than three centuries. This phenomenon was likely to have far-reaching consequences, particularly with respect to the availability of resources necessary to meet human needs, particularly natural resources. The seminal work of Thomas Malthus, published in the late 18th century, offered a compelling argument for the correlation between low per capita income and the slow rate of population growth that prevailed during his era.

According to the Mathusian model, the principle of causation operates in both directions. Higher incomes had been shown to increase population by stimulating early marriage and higher birth rates, and by reducing mortality from malnutrition and other factors. However, higher population also depressed per capita income through reduced marginal productivity. This dynamic interaction between population and the economy was at the core of Malthus' model of income and population determination. This perspective suggested that while substantial population growth could be a significant catalyst for economic development in a country, the absence of adequate employment opportunities during periods of rapid population expansion could impede, rather than foster, economic growth (Mansi et al., 2020; Saleh et al., 2020; Tomizawa et al., 2020).

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In the context of population growth in Maluku over the past two decades, it had increased at a considerable rate. This population growth could be attributed not only to a significant increase in fertility but also to substantial in-migration to the region. Instead of facilitating the development of economic sectors to generate prosperity for the community, the influx of population to Maluku had the potential to hinder such progress. However, the absence of adequate employment opportunities also had the potential to exacerbate unemployment and poverty (Ferdinandus, 2024; Ramly & Ramly, 2022). The challenge of high population growth accompanied by a dearth of employment opportunities did not represent the primary impediment to enhancing economic growth in Maluku Province. However, the geographical condition, characterized by a substantial sea area and a multitude of islands (particularly 1,392 islands), had imposed constraints on the acceleration of economic growth. Moreover, the equitable development anticipated by the community in the context of regional autonomy had not been fully realized.

The findings of this study demonstrate a positive and significant relationship between the population and economic growth in Maluku Province during the period 2002 to 2022. This relationship is further strengthened by the research hypothesis, which posits that population growth exerts a substantial impact on economic development in Maluku Province. In other words, economic growth in Maluku Province was contingent upon annual population increases. This perspective aligned with Adam Smith's economic development theory, which emphasized population growth as the primary factor influencing economic growth and development. The findings also indicated that population growth led to an increase in productivity and economic gain, where when the population-to-other factor ratio was lower, it resulted in an increase in labor and an improvement in public welfare.

Consequently, the rise in population followed by expertise would indeed generate a qualified workforce and enable the effective management of natural resources in Maluku Province, thereby promoting economic development. A study by Darma (2021) demonstrated that the population had a positive and significant effect on economic growth in Tobe Regency from 2016 to 2020. In a similar vein, Rukmana (2012), as evidenced by the results of statistical analysis, demonstrated that the population had a positive and significant impact on economic growth in Central Java. Conversely, an increase in

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ISSN 2721-6330

population would also lead to an increase in the number of taxpayers in a region, thereby affecting economic growth.

Taxes could serve as a source of state or local revenue, enabling the financing of government expenditures, the provision of public facilities (e.g., health facilities, education, infrastructure, and other public services), and the stimulation of economic growth (Mustanir & Latif, 2020; Sugiastuti & Pratama, 2022). This view suggested that taxes could positively impact economic growth if utilized for financing productive public expenditures. Furthermore, Crăciun et al (2023) demonstrated a robust correlation between taxes and economic growth, highlighting that specfic tax types could exert distinct influences on growth.

A body of research indicated that taxes utilized for investment in infrastructure and education could promote long-term economic growth (Amri, 2020). Within the Indonesian context, Kaimuddin (2023) observed that taxes contributed to state revenue, which could be allocated to crucial development projects. Consequently, it could be posited that taxes functioned not only as a source of revenue, but also as a catalyst for economic growth through investment in public services and infrastructure.

In the context of Maluku Province, local revenue from the tax sector exhibited fluctuations from 2002 to 2022, indicating that tax revenue during this period did not contribute to economic growth. This phenomenon could be attributed to two primary factors: a lack of public awareness regarding the importance of taxes and the inadequacy of taxpayer database management. The former was characterized by a lack of understanding among the public regarding the significance of taxes and their role in supporting public services and infrastructure. The latter was evidenced by the incompleteness and inaccuracy of taxpayer databases, which hindered the ability to maximize tax revenue annually. This condition underscored the urgent need for effective tax avoidance behavior mitigation strategies in Maluku Province. The absence of such strategies could lead to a reduction in potential tax revenue, thereby impeding economic growth.

Furthermore, if taxation did not consider the incentives for individuals and investment, it could have a detrimental effect on economic development itself. A study by Fang (2024) revealed that high taxes could impede economic growth. The study furhter explained that

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ISSN 2721-6330

income taxes could have a deleterious effect on economic growth, particularly if they were excessively high and diminish incentives for individuals and firms to invest and innovate. Consequently, it is imperative to strike a balance between the tax burden and government expenditure to ensure that the positive impact on economic growth is maximized.

The findings of this study demonstrate that the t value is -0.009591 with a probability value of 0.9925 > 0.05, thereby indicating that taxes have no impact on economic growth in Maluku Province. Tax revenue data in Maluku Province over several years did not reach the predetermined revenue target, suggesting that taxes might have a negative impact on increasing economic growth in this province. The analysis further reveals that government expenditure was predominantly allocated toward routine expenditures rather than toward the promotion of economic growth through infrastructure development. This observation was further compounded by the absence of public awareness regarding tax compliance, which collectively suggested that taxes might not exert a significant influence on economic growth in Maluku Province. This conclusion is further substantiated by the findings of research conducted in China by Yi and Suyono (2014) and in the United States by Gale et al. (2015), which demonstrated that taxes exerted a negative effect on economic growth in both countries. Consequently, it is imperative for the government to implement policies that can effectively reduce tax evasion and enhance tax compliance among taxpayers in Maluku Province.

However, the geographical characteristics of a region could also influence its capacity to generate local revenue from taxes, as evidenced by the case of Maluku Province. Geographical challenges related to tax revenue could impact the implementation of economic policies, including the distribution of taxes and the development of infrastructure in an equitable manner. The geographical characteristics of a region, such as population density, accessibility, and natural conditions, played a significant role in determining the effectiveness of the tax system and the distribution of resources. In such contexts, geographical challenges could give rise to inequities in tax collection and budget allocation for infrastructure development.

The geography of Maluku Province, which consists of 12 island clusters, posed significant challenges to tax revenue collection.It was acknowledged that regions in proximity to

e-ISSN 2721-625X
ISSN 2721-6330

growth centers tended to exhibit higher tax revenue potential, attributable to the presence of a larger taxable population and business sector. Conversely, regions distant from growth centers frequently possessed a more limited tax base, resulting in comparatively lower tax revenues. This disparity in tax revenues could lead to disparities in infrastructure development, where areas with lower tax revenue might not receive adequate budget allocations for infrastructure projects.

Additionally, inadequate transportation infrastructure impeded tax collection and resource distribution. Oziegbe (2024) underscored that taxes served as a crucial source of revenue for infrastructure investment; however, challenges in tax collection could diminish the government's capacity to finance such projects, thereby indicating that without adequate infrastructure, initiatives to augment tax revenue would encounter impediments, consequently affecting overall economic development.

Conversely, from a political perspective, political stability and the quality of government had been demonstrated to significantly impact the tax system. Ramadhania and Gazali (2022) found that the tax revenue had no significant effect on Indonesia's economic growth during the period under study. Consequently, the notion that government policies established in a stable political environment could enhance tax revenue was not substantiated by extant evidence. Conversely, political instability had been demonstrated to engender uncertainty in tax policy, which could result in a decline in taxpayer compliance and economic growth.

Furthermore, political influence was evident in the decision-making process concerning budgetary allocations. Pusporini (2020) observed that government expenditure on infrastructure development and public services could stimulate economic growth, although this was contingent on the political priorities established by the government. From a social perspective, demographic factors such as population size and age structure significantly affected the relationship between taxes and economic growth. Liyana et al. (2022) demonstrated that progressive taxation could influence economic growth, although this impact was also subject to influence by the demographic composition of society. Their findings indicated that progressive taxes had a negative effect on economic growth, suggesting that a younger population tended to exhibit higher productivity levels and

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ISSN 2721-6330

contribute more to tax revenue, while an aging population could increase social expenditures and reduce the potential for economic growth.

The government's capacity to enhance the efficiency of tax collection and broaden the tax base held the potential to contribute meaningfully to economic growth in the future. Such measures would be particularly salient in light of the correlation between taxes and population on economic growth. The implementation of tax reform with a focus on enhancing tax compliance and reducing tax evasion emerged as a pivotal strategy in this regard. From a population perspective, the government's ability to improve the quality of education and health services stood to benefit economic growth by leveraging the potential of the growing population. However, challenges such as rapid urbanization and inequality in resource distribution must be addressed to ensure that economic growth was equally distributed throughout society.

At this level, it was believed that a considerable increase in population and realization of tax revenue would affect the economic growth of a region, provided that the government could provide employment opportunities, enhance infrastructure, and augment the pool of qualified human resources, thereby stimulating sustained economic growth. Consequently, a favorable investment climate is imperative as a catalyst for economic growth in Maluku Province. Another crucial aspect that demands consideration is the government's capacity to explore and optimally utilize its economic potential while taking into account the interests of future generations.

CONCLUSIONS

Based on the regression results, it was found that, partially, the population has a positive and significant effect on economic growth in Maluku Province, while the tax variable has a negative impact on economic growth in Maluku Province when considered individually. Furthermore, simultaneously, the population and tax variables have a positive and significant influence on economic growth in Maluku Province. The model exhibits a high explanatory power, with an R^2 value of 95.6%, indicating that the interplay between population dynamics and fiscal policy substantially accounts for variations in economic performance. These results underscore the necessity for integrated policy approaches that leverage demographic potential while addressing fiscal inefficiencies. Accordingly, the

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ISSN 2721-6330

study recommends strategic investments in human capital development, tax administration reform, and infrastructure tailored to the province's archipelagic geography. Such measures are imperative for fostering inclusive and sustainable regional growth in the context of Indonesia's diverse economic landscape.

LIMITATIONS AND SUGGESTIONS

A limitation of this study is the restriction of the analysis to secondary data from 11 districts / cities, resulting in a macro-level analysis. Additionally, budgetary constraints prevented the collection of empirical data, hindering the ability to assess actual conditions. Therefore, future researches are suggested to take into account the unique characteristics of each district/city to obtain more in-depth analysis and the ability to address the underlying causes of economic growth in the islands.

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