

ORIGINAL ARTICLE



The Effects of Tourism Determinants on Poverty through Economic Growth in Indonesia

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Abstract

As an archipelagic and developing country, Indonesia faces complex and persistent poverty challenges that hinder both societal welfare and provincial economic growth. This study aims to examine the factors influencing tourism and assess efforts to reduce poverty through economic growth. Using panel data from 34 provinces in Indonesia for the period 2016 to 2024, the analysis applies a random effects regression model. The results show that domestic tourist arrivals, international tourist arrivals, occupancy rates of starred hotels, and occupancy rates of non-starred hotels exert a positive and significant effect on poverty. In contrast, economic growth does not significantly influence poverty and does not function as a mediating variable. To sustain increases in tourist arrivals both domestic and international the government should enhance promotional efforts for Indonesian tourism and strengthen support for regional tourism development. Moreover, providing subsidies and improving access to business loans for hotel operators can help expand their operational capacity. Finally, the government needs to improve the competence of tourism stakeholders through well designed and effective education and training programs.

Introduction

In the era of globalization, poverty remains an unresolved problem that hinders sustainable development and the achievement of community welfare [1]. Although numerous poverty alleviation programs have been implemented, the challenges continue to intensify, particularly due to rising economic inequality and unequal access to resources [2–4]. Poverty is not only experienced by developing countries but also persists in developed countries. By 2024, nearly seven hundred million people worldwide were estimated to be living in poverty with an income of less than two point fifteen dollars per day. The proportion of workers living below the poverty line declined from 14.3 percent in 2010 to 7.1 percent in 2019 [5]. Poverty reflects a condition in which individuals face severe difficulty and deprivation in meeting basic needs [6]. However, this figure increased again when the COVID-19 pandemic affected countries across the world including Indonesia.

Poverty is a major factor that hinders the process of economic development [7,8]. Economic development aims to improve societal welfare by increasing income distribution and stimulating economic growth within a country [9,10]. Equitable development and the expansion of employment opportunities can also contribute to poverty reduction [11]. Although poverty is a problem that requires a long time to eliminate, continuous efforts are needed to reduce the number of people living in poverty. Increasing income is one approach to addressing poverty, which reflects an increase in regional economic activity through the production of goods and services [12,13]. Geographical and sociological isolation also contribute to poverty. According to W Arthur Lewis, capital plays a central role in economic growth, and poverty can arise when limited access to capital reduces productivity and income [14].

Poor individuals generally have limited entrepreneurial skills and restricted access to economic activities, which causes them to fall further behind communities with greater economic potential [15,16]. Poverty measurement is based on different standards while still recognizing two main categories of poverty. The first is absolute poverty, which refers to a condition in which an individual's income is insufficient to meet basic needs such as food, clothing, shelter, health, and education. The second is relative poverty, which measures poverty based on the proportion of income distribution within a particular region [17]. Internal factors include low levels of education that lead to limited skills and restricted employment opportunities, thereby perpetuating poverty. Limited education and information also hinder efforts to develop local tourism into a viable source of livelihood [18]. Poverty is a difficult cycle to break, as both internal and external constraints contribute to its persistence. External factors include restricted access to education, healthcare, and employment opportunities [19].

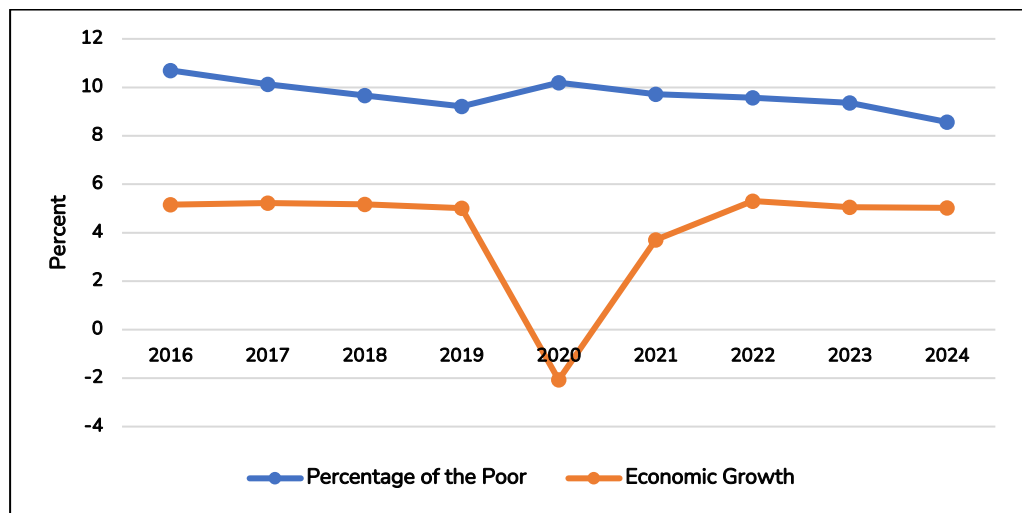


Figure 1. Percentage of poor people and economic growth in Indonesia 2016-2024 (Source: Statistics Indonesia).

Figure 1 shows an increase in the proportion of impoverished individuals in Indonesia, with much of this rise driven by the Covid 19 pandemic. In 2019, the poverty rate was 9.22 percent, and in 2020 it increased to 10.19 percent, adding approximately 2.4 million individuals to the impoverished population. Indonesia's economic growth does not always proceed as expected, particularly when external shocks occur. The Covid 19 pandemic disrupted national and regional economies, as the government implemented mobility restrictions to limit viral transmission [20]. These restrictions significantly reduced both economic and non-economic activities and weakened overall economic performance.

During the pandemic, the central government attempted to revive the tourism and economic sectors while prioritizing public health. The policy known as the new normal allowed limited reopening of economic, social, and public activities through the application of new health standards that had not existed before the pandemic [21]. In 2021, Indonesia experienced an improvement in economic growth even though the pandemic was ongoing. Mass vaccination programs, fiscal stimulus, recovery in consumption, and international trade contributed to this improvement. Policies such as Large-Scale Social Restrictions and the Enforcement of Restrictions on Community Activities initially constrained economic activity, but revisions were later introduced to support economic recovery in communities.

Mobility restrictions during the pandemic caused a significant decline in domestic tourist visits, which in turn affected the income of local communities and the overall performance of the tourism sector. This situation placed the government in a difficult position, as it needed to balance the imperative of sustaining economic activity with the necessity of controlling the

spread of Covid 19 [20]. A balanced policy response was required to support both public health and economic resilience. In practice, this involved implementing health protocols, regulating the capacity of tourist sites, and gradually reopening tourism activities while monitoring infection rates. The government also had to coordinate with regional authorities to ensure that local economic recovery initiatives did not compromise national health objectives. This period highlighted the vulnerability of tourism dependent economies to public health crises and underscored the need for policies that can simultaneously protect citizens and maintain economic stability [22].

Indonesia is an archipelagic country endowed with rich biological, marine, natural, and cultural tourism resources, making it one of the world's prominent tourist destinations [23]. Every region in Indonesia possesses unique cultural expressions, traditions, and natural assets. Tourism is an important sector in national development because it generates foreign exchange and creates employment opportunities for local communities [24]. The arrival of domestic and foreign tourists increases local income, as tourist consumption stimulates output, goods, and wages in sectors that serve tourist demand [25,26]. This increase in consumption encourages further production of goods and services, which contributes to regional income, particularly through the gross regional domestic product [27]. Regional economic growth is influenced by investments in key sectors that contribute significantly to local economic performance and, in turn, to Indonesia's overall economic growth [28].

Tourism development also accelerates economic growth because tourism activities generate income and expenditure that stimulate the demand for manufactured goods and services [29]. Tourists increase demand not only for consumer goods and services but also for capital goods and raw materials required to meet tourism demand [30]. Meeting these needs requires investment in transportation and communication, hospitality and accommodation, craft industries, service industries, and culinary industries.

Tourism has long been a major economic contributor to many countries. It is often described as an industry with broad economic benefits and relatively manageable environmental impacts when properly governed [31]. The multiplier effect of tourism spending is frequently cited to show how tourism supports multiple economic sectors. These benefits and costs extend across industries and make tourism an economic activity of global importance [32].

Previous studies show that tourist arrivals significantly contribute to economic growth. Research by Kadir and Karim [33] demonstrates the positive role of tourism in Malaysia's economic performance. Studies by Kim et al. [34] similarly argue that tourism in developing countries can stimulate economic growth and development. Effective tourism development can reduce poverty by increasing the number of visitors, although, as noted by Amnar et al. [35], it may also widen income inequality if not properly managed. Chulaphan & Barahona [36] also state that tourism potentially generates income opportunities for both small and large operators across the tourism value chain.

This study highlights the relationship between tourism and poverty in Indonesia by examining domestic tourist visits, foreign tourist visits, and occupancy rates of starred and non-starred hotels as key tourism indicators. Economic growth is included as a mediating variable in the relationship between tourism and poverty. Although many studies have explored the links between tourism and economic growth or tourism and poverty, very few have examined tourism as a determinant of poverty while incorporating economic growth as a mediating mechanism. Furthermore, research on the mediating role of economic growth in the relationship between tourism and poverty in developing countries, including Indonesia, remains limited. This study aims to fill this gap by assessing how economic growth mediates the influence of tourism on poverty and evaluating the extent to which economic growth can function as an effective mediating mechanism.

Materials and Methods

Data and Variables

This study employs a quantitative research approach to examine the effect of domestic tourist arrivals, foreign tourist arrivals, starred hotel occupancy rates, and non-starred hotel occupancy rates on poverty in Indonesia. The research covers the period from 2016 to 2024 and uses panel data from 34 provinces. Although Indonesia currently consists of 38 provinces, only 34 provinces are included in the analysis because the four newly established provinces do not yet have complete data. All data used in this study are obtained from Statistics Indonesia.

Table 1. Research variables.

Status	Variable Name	Symbol	Unit Measurement
Dependent	Poverty	POV	Percent
Independent	Domestic Tourism Arrival	DTA	Number of people
	Foreign Tourist Arrival	FTA	Number of people
	Starred Hotel Occupancy Rates	SOR	Percent
	Non-starred Hotel Occupancy Rates	NOR	Percent
Intervening	Economic Growth	EG	Percent

Model Specification and Method

This study develops four regression models. Model 1 examines the effect of domestic tourist arrivals, foreign tourist arrivals, starred hotel occupancy rates, and non-starred hotel occupancy rates on poverty. Model 2 investigates the effect of these same independent variables on economic growth. Model 3 analyzes the effect of economic growth on poverty. Finally, Model 4 evaluates the combined effect of domestic tourist arrivals, foreign tourist arrivals, starred and non-starred hotel occupancy rates, and economic growth on poverty. Dividing the analysis into four models allows a clear understanding of the relationships between independent, mediating, and dependent variables: Model 1 shows the direct effect of the independent variables on the dependent variable, Model 2 shows the effect of the independent variables on the mediator, Model 3 shows the effect of the mediator on the dependent variable, and Model 4 shows the overall effect of independent and mediating variables on the dependent variable. The models in this study can be expressed as follows:

$$POV_{it} = \beta_0 + \beta_1 DTA_{it} + \beta_2 FTA_{it} + \beta_3 SOR_{it} + \beta_4 NOR_{it} + \varepsilon_{it} \tag{1}$$

$$EG_{it} = \beta_0 + \beta_1 DTA_{it} + \beta_2 FTA_{it} + \beta_3 SOR_{it} + \beta_4 NOR_{it} + \varepsilon_{it} \tag{2}$$

$$POV_{it} = \beta_0 + \beta_1 EG_{it} + \varepsilon_{it} \tag{3}$$

$$POV_{it} = \beta_0 + \beta_1 DTA_{it} + \beta_2 FTA_{it} + \beta_3 SOR_{it} + \beta_4 NOR_{it} + \beta_5 EG_{it} + \varepsilon_{it} \tag{4}$$

Panel data regression analysis is conducted in several steps, beginning with the selection of the optimal model among the Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM). The Chow test is used to select between CEM and FEM, the Hausman test distinguishes between REM and FEM, and the Lagrange Multiplier (LM) test is used to choose between CEM and REM.

To assess the mediation effect of economic growth, the Sobel test is applied. This test evaluates the significance of the indirect effect of the independent variables on the dependent variable through the mediating variable [37]. In mediation analysis, the mediator acts as an intermediary between the independent and dependent variables, allowing assessment of both direct and indirect effects.

Classical assumption tests are performed to ensure the accuracy and reliability of the regression results. Multicollinearity is tested to examine correlations among independent variables. The heteroscedasticity test is not conducted because the Random Effect Model (REM) is used, which

is robust to heteroscedasticity. The normality test is not applied, as panel data with a large number of observations does not require it as a strict condition. Additionally, autocorrelation testing is not used because it is primarily relevant for time series data and is generally ineffective for cross-sectional or panel data.

Results and Discussion

Descriptive Statistics

Descriptive statistics in Table 2 provide an overview of the characteristics and relationships between variables in the sample. They are useful for summarizing scattered data and preparing for inferential statistical analysis. This study uses six variables across 34 cross-sections and 9 time periods, resulting in a total sample of 306 observations. Poverty (POV), starred hotel occupancy rate (SOR), non-starred hotel occupancy rate (NOR), and economic growth (EG) are expressed as percentages, while domestic tourist arrivals (DTA) and foreign tourist arrivals (FTA) are expressed in terms of the number of people.

The POV variable ranges from a minimum of 3.42 percent to a maximum of 28.4 percent, with a mean of 10.43 percent and a median of 8.73 percent. The standard deviation of POV is 5.41 percent. Economic growth (EG) ranges from -15.74 percent to 22.94 percent, with a mean of 4.50 percent, a median of 5.01 percent, and a standard deviation of 3.67 percent. The DTA variable ranges from 211,976 people to 205 million people, with a mean of 17,247,578 people and a median of 5,098,961 people. The standard deviation is 33,829,629. The FTA variable has a minimum of 10 people and a maximum of 6,333,360 people, with a mean of 299,350 people, a median of 15,191.5 people, and a standard deviation of 938,765.5. The SOR variable ranges from 13.08 percent to 71.12 percent, with a mean of 46.55 percent, a median of 47.45 percent, and a standard deviation of 9.56 percent. The NOR variable ranges from 5.82 percent to 74.27 percent, with a mean of 25.94 percent, a median of 24.37 percent, and a standard deviation of 8.83 percent. These descriptive statistics provide an initial understanding of the distribution and variation of the variables, which is essential for subsequent regression and mediation analyses.

Table 2. Descriptive statistics.

Variable	Mean	Median	Max.	Min.	Std. Dev.
POV	10.43807	8.735	28.4	3.42	5.411438
EG	4.507092	5.005	22.94	-15.74	3.670541
DTA	17,247,578	5,098,961	205,000,000	211,975	33,829,629
FTA	299350	15191.5	6333360	10.00000	938765.5
SOR	46.54768	47.45	71.12	13.08	9.567208
NOR	25.93618	24.37	74.27	5.82	8.827594

Multicollinearity Test

Multicollinearity testing was performed to determine whether a significant correlation exists between the independent variables in this study [38]. Table 3 shows that the correlation coefficients among DTA, FTA, SOR, NOR, and EG are all below 0.8. Based on this result, it can be concluded that multicollinearity is not a concern in this study.

Table 3. Multicollinearity test results.

Variable	DTA	FTA	SOR	NOR	EG
DTA	1.000000				
FTA	0.045341	1.000000			
SOR	0.100165	0.294525	1.000000		
NOR	0.039686	0.424377	0.630474	1.000000	
EG	-0.040140	0.032111	0.380490	0.175778	1.000000

Model Determination Test

Table 4 presents the results of the model determination tests. For Model I, which examines the effect of domestic tourist arrivals, foreign tourist arrivals, starred hotel occupancy rates, and non-starred hotel occupancy rates on poverty, the Random Effect Model (REM) was identified as the most appropriate. Similarly, for Model II, which assesses the effect of these independent variables on economic growth, the REM was also the best-fitting model. Model III, which analyzes the effect of economic growth on poverty, is best represented by the REM. Finally, for Model IV, which evaluates the combined effect of domestic tourist arrivals, foreign tourist arrivals, starred and non-starred hotel occupancy rates, and economic growth on poverty, the REM again provides the most suitable specification.

Table 4. Model determination test results.

Model	Test	Prob.	Conclusions
Model 1	Chow test	0.00	FEM
	Hausman test	0.23	REM
	Lagrange multiplier test	0.00	REM
Model 2	Chow test	0.00	FEM
	Hausman test	0.18	REM
	Lagrange multiplier test	0.00	REM
Model 3	Chow test	0.00	FEM
	Hausman test	0.82	REM
	Lagrange multiplier test	0.00	REM
Model 4	Chow test	0.00	FEM
	Hausman test	0.34	REM
	Lagrange multiplier test	0.00	REM

Regression Results

Table 5 presents the regression results for the four models, with the Random Effect Model (REM) selected as the best specification in all cases. In Model 1, domestic tourist arrivals (DTA), foreign tourist arrivals (FTA), non-starred hotel occupancy rates (NOR), and starred hotel occupancy rates (SOR) all have significant effects on poverty. DTA, FTA, and SOR exhibit negative impacts on poverty, while NOR has a positive impact. In Model 2, only the SOR variable is significant and influences economic growth, whereas DTA, FTA, and NOR do not show significant effects. SOR is found to have a positive impact on economic growth. Model 3 shows that economic growth does not significantly affect poverty. In Model 4, the SOR variable does not significantly affect poverty, whereas DTA, FTA, NOR, and economic growth (EG) all have significant effects on poverty. DTA, FTA, and EG have negative impacts on poverty, while NOR has a positive impact.

In terms of simultaneous effects, all models containing more than one independent variable (Models I, II, and IV) report a Prob. F-statistic value of 0.0000, indicating that all independent variables in each model jointly exert a significant influence on the dependent variable. Meanwhile, although the R^2 values appear very low, panel data analysis places greater emphasis on coefficient and statistical significance rather than on the magnitude of the R^2 .

Table 5. Regression results based on REM.

Model	Variable	Coef.	Std. Er.	t-stat.	Prob.
Model I (Dependent: POV)	C	10.32403***	0.963537	10.71472	0.0000
	DTA	-6.54E-09**	3.11E-09	-2.100868	0.0365
	FTA	-2.63E-07**	1.21E-07	-2.179236	0.0301
	SOR	-0.020477**	0.00978	-2.093705	0.0371
	NOR	0.048528***	0.012002	4.043223	0.0001
	R^2	0.090876		F-Stat.	7.5220***
	Adj. R^2	0.078795		Prob. (F-Stat.)	0.0000

Model	Variable	Coef.	Std. Er.	t-stat.	Prob.
Model II (Dependent: EG)	C	-3.33248***	1.053762	-3.162459	0.0017
	DTA	-4.5E-09	7.57E-09	-0.594777	0.5524
	FTA	-1.26E-07	2.99E-07	-0.420741	0.6742
	SOR	0.176494***	0.028784	6.131603	0.0000
	NOR	-0.010044	0.034413	-0.29187	0.7706
	R ²	0.183187		F-Stat.	16.876***
	Adj. R ²	0.172332		Prob. (F-Stat.)	0.0000
Model III (Dependent: POV)	C	10.54176***	0.945298	5.486431	0.0000
	EG	-0.023005	0.016525	0.912121	0.1649
	R ²	0.006354		F-Stat.	1.9440
	Adj. R ²	0.003086		Prob. (F-Stat.)	0.1643
Model IV (Dependent: POV)	C	10.2033***	0.979344	10.4185	0.0000
	DTA	-6.33E-09**	3.1E-09	-2.04274	0.0420
	FTA	-2.57E-07**	1.2E-07	-2.143637	0.0329
	SOR	-0.015286	0.010136	-1.508013	0.1326
	NOR	0.04935***	0.011954	4.128447	0.0000
	EG	-0.032702*	0.017652	1.85259	0.0649
	R ²	0.101521		F-Stat.	6.7795***
	Adj. R ²	0.086546		Prob. (F-Stat.)	0.0000

Note: ***, **, and * indicate significance levels at the 10%, 5%, and 1% levels, respectively.

Path Analysis

The Sobel test results, presented in Table 6, show the indirect effects of the independent variables on poverty through economic growth as a mediating variable. The significance of the mediation effect is determined by the probability value of the Sobel test. The results show that economic growth does not mediate the effect of domestic tourist arrivals on poverty, as the Sobel test probability value is 0.58, which is greater than the 0.05 significance level. Similarly, economic growth does not mediate the effect of foreign tourist arrivals on poverty, with a probability value of 0.68 > 0.05. The mediation effect of economic growth is also not observed for starred hotel occupancy rates, with a Sobel test probability value of 0.17 > 0.05, and for non-starred hotel occupancy rates, with a probability value of 0.77 > 0.05. These results indicate that economic growth is unable to serve as a mediating variable for any of the independent variables in relation to poverty.

Table 6. Sobel test results.

Path	Indirect Effect Coef.	Sobel Stat.	Prob.
DTA → EG → POV	1.0352E-10	-0.54669642	0.5846
FTA → EG → POV	2.8986E-09	-0.40333104	0.6867
SOR → EG → POV	-0.00406	1.35758306	0.1746
NOR → EG → POV	0.000231	-0.28565597	0.7751

Path analysis illustrates the extent to which domestic tourist arrivals, foreign tourist arrivals, starred hotel occupancy rates, and non-starred hotel occupancy rates affect poverty through economic growth. These results also clarify the relationships between the dependent and independent variables, which are depicted in path diagrams. The diagrams use solid lines to indicate direct relationships and dotted lines to represent relationships mediated by economic growth.

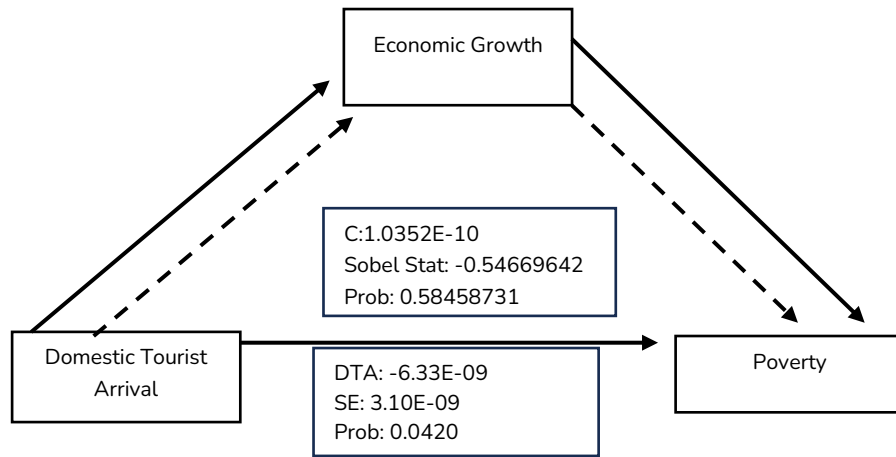


Figure 2. Path analysis of the effect of domestic tourist arrival on poverty through economic growth.

Figure 2 shows the relationship between domestic tourist arrivals, economic growth, and poverty. The direct effect of domestic tourist arrivals on poverty is negative and significant, with a coefficient value that is negative and a probability value of $0.0420 < 0.05$. Economic growth does not mediate this relationship, as the Sobel test probability value is $0.58 > 0.05$.

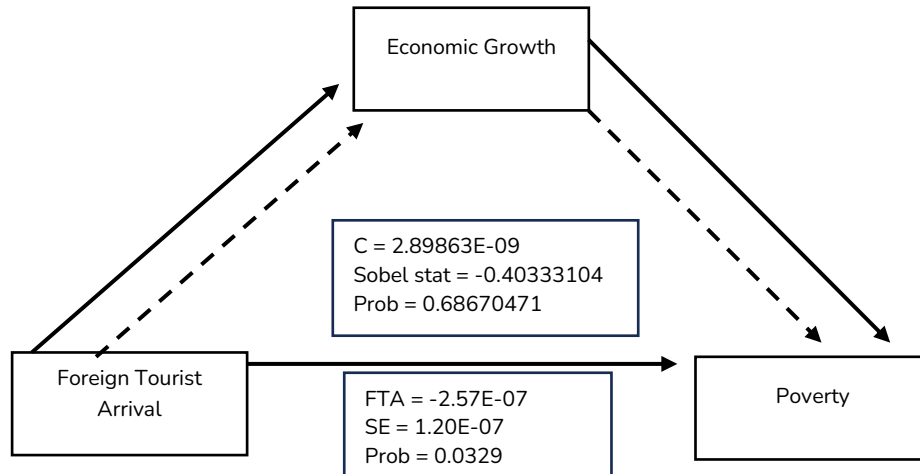


Figure 3. Path analysis of the effect of foreign tourist arrival on poverty through economic growth.

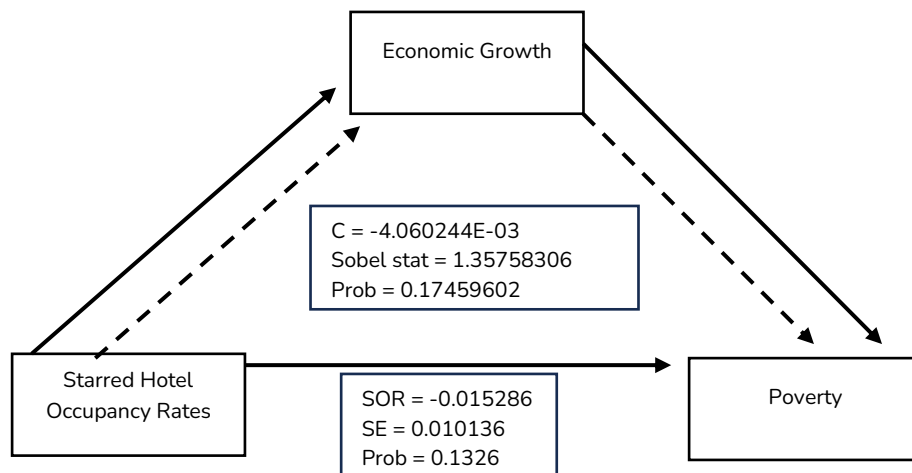


Figure 4. Path analysis of the effect of starred hotel occupancy rates on poverty through economic growth.

Figure 3 illustrates the relationship between foreign tourist arrivals and poverty. Foreign tourist arrivals have a negative and significant effect on poverty, with a coefficient of -0.000000257

and a probability value of $0.0329 < 0.05$. Economic growth does not mediate this relationship, as indicated by the Sobel test probability value of $0.68 > 0.05$.

Figure 4 shows that the starred hotel occupancy rate negatively affects poverty with a coefficient of -0.015286 ; however, this effect is not statistically significant (probability value = $0.1326 > 0.05$). Economic growth does not serve as a mediating variable in this relationship, as the Sobel test probability value is $0.17 > 0.05$.

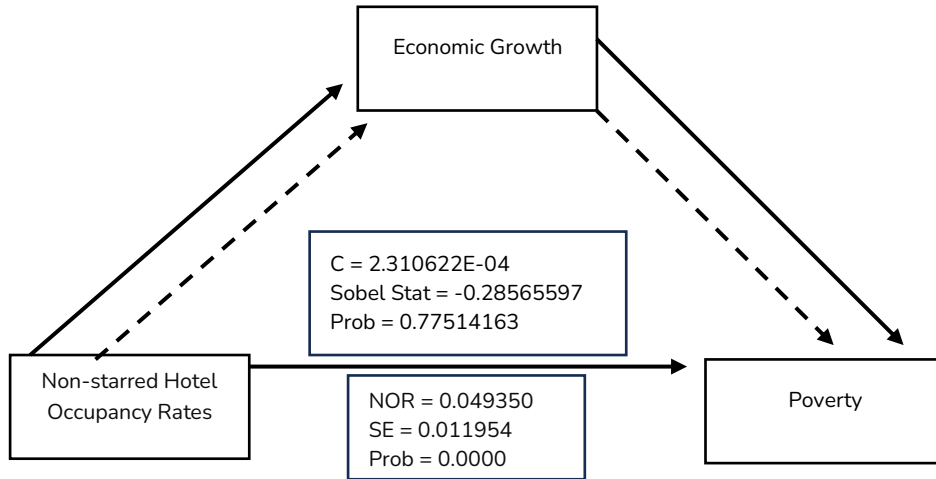


Figure 5. Path analysis of the effect of non-starred hotel occupancy rates on poverty through economic growth.

Figure 5 presents the effect of non-starred hotel occupancy rates on poverty. This variable has a positive and significant effect on poverty, with a probability value of $0.0000 < 0.05$. Economic growth does not mediate the effect, as the Sobel test probability value is $0.77 > 0.05$.

Discussion

The Effect of Domestic Tourist Arrivals on Poverty and Economic Growth

Domestic tourist arrivals stimulate economic activity, as increasing tourist numbers raise purchasing power in tourist areas and encourage local communities to create business opportunities in goods and services. This increased activity supports small and medium enterprises, local artisans, and vendors, providing them with additional revenue streams. It also contributes to a multiplier effect, where the spending of tourists indirectly stimulates other sectors, such as transportation, food production, and handicrafts. This increase in economic activity can raise the income of communities and business owners around tourist sites, enhancing local economic resilience. These results are consistent with studies conducted by Agus & Sari [39], Zubir et al. [40], and Dwiningwarni et al. [41].

Although increased domestic tourist arrivals should theoretically boost economic growth by stimulating high economic activity and increasing regional gross domestic product, this study finds that the effect is not significant on a larger scale. However, it is evident that tourist visits improve local economies around tourism areas, particularly in small towns and rural areas that rely heavily on tourism-generated income. These results contrast with the studies of Chulaphan & Barahona [36] and Asmynendar et al. [42], which report a positive influence of domestic tourist arrivals on broader economic growth due to the stimulation of socio-economic activities in tourism areas, suggesting that scale and regional integration may affect how tourism translates into measurable economic growth.

The Effect of Foreign Tourist Arrivals on Poverty and Economic Growth

An increase in foreign tourist arrivals can reduce poverty by stimulating economic activities such as lodging payments, shopping for food and beverages, and other local expenditures. Foreign tourists also support higher-end services, including guided tours, cultural performances, and specialty retail, which generate additional income for local communities. The presence of foreign tourists increases labor demand in tourism-related sectors, including hotel staff, tour guides, translators, and suppliers of raw materials for culinary and cultural businesses. This additional labor supply raises community income and reduces unemployment, contributing to poverty alleviation and improving living standards. These findings align with research by Sánchez López [26] and Amnar et al. [35].

Despite this, foreign tourist arrivals have not significantly increased overall economic growth in Indonesia during the study period. The negative effect observed reflects the impact of the Covid-19 pandemic, during which government policies such as PSBB and travel restrictions significantly limited tourism and broader economic activities. Consequently, the tourism sector, one of the hardest-hit sectors, was unable to contribute meaningfully to national economic growth, highlighting the vulnerability of tourism-dependent economic models to global disruptions.

The Effect of Starred Hotel Occupancy Rates on Poverty and Economic Growth

Higher starred hotel occupancy rates contribute directly to poverty reduction. Increasing hotel occupancy generates revenue and employment opportunities, providing wages and salaries that improve household income and financial stability. Starred hotels often employ a larger workforce, including managers, housekeeping staff, chefs, and service personnel, creating stable employment opportunities. These results are consistent with previous studies by Zubir et al. [40] and Lucitania & Rahayu [43].

Starred hotel occupancy can also positively affect economic growth, as taxes, licensing fees, and other revenues from hotel operations contribute to regional income and overall economic performance. Starred hotels often attract higher-spending tourists, further stimulating local businesses and related sectors. These findings align with studies by Asmynendar et al. [42] and Sihite & Nugroho [23], which highlight the positive economic impact of increased hotel occupancy, emphasizing the importance of upscale tourism infrastructure for regional economic development.

The Effect of Non-starred Hotel Occupancy Rates on Poverty and Economic Growth

Non-starred hotel occupancy affects poverty differently. Non-starred hotels typically have fewer rooms, limited facilities, and smaller staff, catering to tourists seeking affordable lodging. While they provide income for small business owners and family-run enterprises, their contribution to employment generation and poverty reduction is limited. Non-starred hotels also tend to operate on a smaller scale with lower revenue, restricting the capacity to hire more employees or provide higher wages.

Unlike starred hotels, non-starred hotel occupancy does not significantly affect economic growth. The income earned by non-starred hotel managers may not be fully reported for tax purposes, reducing its impact on regional income and broader economic growth. These findings are consistent with the study by Sari [37] and underscore that while budget accommodations contribute to community income, they are less effective at driving regional economic development compared with larger, higher-end tourism facilities.

The Effect Economic Growth on Poverty

Economic growth has a negative but non-significant effect on poverty. While theoretically, higher economic growth should reduce poverty by increasing employment, wages, and investment opportunities, the absence of a strong, statistically significant effect suggests that economic growth alone is insufficient. Effective policies that ensure growth translates into improved community welfare, equitable distribution of resources, and access to social services are critical. Without such measures, growth may fail to alleviate poverty in regions with structural inequalities or limited integration with high-growth sectors.

Economic Growth as a Mediating Variable

Economic growth does not significantly mediate the relationship between domestic and foreign tourist arrivals, starred hotel occupancy, non-starred hotel occupancy, and poverty. Table 7 shows Sobel test probability values exceeding 0.05, indicating no significant indirect effects. The lack of mediation may result from the mediating variable being too weak to explain the relationships fully. Other external variables not included in the model, such as regional policy effectiveness, infrastructure quality, and social capital, may independently influence poverty, reducing the apparent mediating role of economic growth in the tourism-poverty relationship.

Conclusions

This study concludes that domestic tourist visits, foreign tourist visits, starred hotel occupancy rates, and non-starred hotel occupancy rates significantly contribute to reducing poverty in Indonesia. However, economic growth has not been able to exert an indirect influence on poverty through these tourism variables. The inability of economic growth to act as a mediating variable may be because domestic and foreign tourist visits, as well as starred and non-starred hotel occupancy rates, have a direct effect on poverty.

To further reduce poverty in Indonesia, the government should prioritize the development and implementation of programs aimed at alleviating poverty. This includes building adequate infrastructure in remote and hard-to-reach tourist areas, facilitating access for foreign tourists, and collaborating with airlines to provide direct flights from countries with the highest tourist arrivals to Indonesia. Additionally, the government should provide targeted training and education to support tourism-related activities, offer subsidies, and implement financial assistance programs for entrepreneurs seeking to expand their tourism businesses. These measures aim to create job opportunities, enhance community income, and ultimately reduce poverty levels across the country.

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Data Availability Statement: Data is available upon request.

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References

- [1] Munzir AG, Syechalad MN, Silvia V. The Effect of Government Expenditures, Private Investment and Labor on Economic Growth in Pidie District. *Sriwijaya International Journal of Dynamic Economics and Business* 2017:357–74.
- [2] Alvaredo F, Gasparini L. Recent Trends in Inequality and Poverty in Developing Countries, 2015, p. 697–805. <https://doi.org/10.1016/B978-0-444-59428-0.00010-2>.
- [3] United Nations. Global Issues: Ending Poverty 2020. <https://www.un.org/en/global-issues/ending-poverty>

- [4] Sikdar A, Bani NY binti M, Salimullah AHM, Majumder SC, Idroes GM, Hardi I. Energy Poverty and Environmental Quality Nexus: Empirical Evidence from Selected South Asian Countries. *Ekonomikalia Journal of Economics* 2024;2:119–35. <https://doi.org/10.60084/eje.v2i2.221>.
- [5] Statistics Indonesia. Memahami Perbedaan Angka Kemiskinan versi Bank Dunia dan BPS 2025. <https://www.bps.go.id/id/news/2025/05/02/702/memahami-perbedaan-angka-kemiskinan-versi-bank-dunia-dan-bps.html>.
- [6] Fitriady A, Silvia V, Suriani S. The Impact of Macroeconomic Variables on the Real Economic Growth in Indonesia. *International Journal of Global Optimization and Its Application* 2022;1:70–9.
- [7] Ammara TR, Syahnur S, Srinita S. The Moderating Effect of Female Labor Force Participation on Economic Growth in ASEAN. *Ekonomikalia Journal of Economics* 2025;3:93–105. <https://doi.org/10.60084/eje.v3i2.327>.
- [8] Hardi I, Kurniawan R, Ray S, Idroes GM, Noviandy TR, Majid MSA. Reducing the poverty gap and severity in Indonesia: The role of renewable energy access and consumption. *Human Settlements and Sustainability* 2025;1:145–57. <https://doi.org/10.1016/j.hssust.2025.06.001>.
- [9] Balqis R, Syahnur S, Ernawati E. Analysis of the Influence of Investment and Labor on Poverty Levels Through the Growth of the Indonesian Manufacturing Industry. *Ekonomikalia Journal of Economics* 2024;2:29–37. <https://doi.org/10.60084/eje.v2i1.134>.
- [10] Hardi I, Ringga ES, Idroes GM, Astina C, Muda UP, Noviandy TR, et al. Green Human Development in Indonesia: Role of Renewable and Nonrenewable Energy. *Chinese Journal of Population, Resources and Environment* 2025;23:397–411. <https://doi.org/10.1016/j.cjpre.2025.07.010>.
- [11] Nasution LN, Rusiadi AN, Putri D. Impact of Monetary Policy on Poverty Levels in Five ASEAN Countries. *The Seybold Report* 2022;17. <https://doi.org/10.5281/zenodo.7081013>.
- [12] Abdul Rahman M, Sani NS, Hamdan R, Ali Othman Z, Abu Bakar A. A Clustering Approach to Identify Multidimensional Poverty Indicators for the Bottom 40 Percent Group. *PLOS ONE* 2021;16:e0255312. <https://doi.org/10.1371/journal.pone.0255312>.
- [13] Naufal A, Fikriah F. Regional Nexus of Economic Growth, Income Inequality and Poverty. *Ekonomikalia Journal of Economics* 2023;1:61–8. <https://doi.org/10.60084/eje.v1i2.114>.
- [14] Chambers R. Rural Development. Routledge; 2014. <https://doi.org/10.4324/9781315835815>.
- [15] Amponsah M, Agbola FW, Mahmood A. The relationship between poverty, income inequality and inclusive growth in Sub-Saharan Africa. *Economic Modelling* 2023;126:106415. <https://doi.org/10.1016/j.econmod.2023.106415>.
- [16] Hardi I, Idroes GM, Márquez-Ramos L, Noviandy TR, Idroes R. Inclusive Innovation and Green Growth in Advanced Economies. *Sustainable Futures* 2025;9:100540. <https://doi.org/10.1016/j.sftr.2025.100540>.
- [17] Sinurat RPP. Analisis Faktor-Faktor Penyebab Kemiskinan sebagai Upaya Penanggulangan Kemiskinan di Indonesia. *Jurnal Registratie* 2023;5:87–103. <https://doi.org/10.33701/jurnalregistratie.v5i2.3554>.
- [18] Hermanita H. Perekonomian Indonesia. 1st ed. Agree Media Publishing; 2021.
- [19] Jhingan ML. Ekonomi Pembangunan dan Perencanaan. 1st ed. Rajawali Press; 2012.
- [20] Dinata AW, Akbar MY. Pembatasan Hak Untuk Bergerak (Right to Move) melalui Larangan Masuk dan Pembatasan Perjalanan selama Penyebaran Virus COVID-19 menurut Hukum Internasional dan Hukum Indonesia. *Jurnal HAM* 2021;12:305. <https://doi.org/10.30641/ham.2021.12.305-324>.
- [21] Pham T, Nugroho A. Tourism-induced Poverty Impacts of COVID-19 in Indonesia. *Annals of Tourism Research Empirical Insights* 2022;3:100069. <https://doi.org/10.1016/j.annale.2022.100069>.
- [22] Maulana ARR, Dharmawan H. The Impact of Consumer Confidence on Tourism: Evidence from Indonesia. *Indatu Journal of Management and Accounting* 2025;3:29–39. <https://doi.org/10.60084/ijma.v3i1.315>.
- [23] Sihite J, Nugroho A. Exploring the Indonesian Tourism Destination via Indonesia.Travel @indtravel. Proc. 2nd Int. Conf. Tour. Gastron. Tour. Destin. (ICTGTD 2018), Paris, France: Atlantis Press; 2018. <https://doi.org/10.2991/ictgtd-18.2018.4>.
- [24] Adam M, Putra TRI, Ibrahim M. Marketing Strategy for Tourism Potential in the Framework of Regional Development as a Tourist Destination. *Indatu Journal of Management and Accounting* 2023;1:12–20. <https://doi.org/10.60084/ijma.v1i1.81>.
- [25] Lagos K, Wang Y. International Tourism and Poverty Alleviation: Cross-Country Evidence Using Panel Quantile Fixed Effects Approach. *Journal of Travel Research* 2023;62:1347–71. <https://doi.org/10.1177/00472875221119978>.
- [26] Sánchez López F. The Effect of International Visitors on Poverty Alleviation in Mexico: An Approach from the Misery Index. *Journal of Applied Economics* 2022;25:839–55. <https://doi.org/10.1080/15140326.2021.1977079>.

- [27] Muzadi A. Peran Pemimpin dalam Pengelolaan Pariwisata di Kota Cirebon. *In Conference on Public Administration and Society* 2019;1.
- [28] Aprina H, Abd Majid MS, Silvia V. Does the Covid-19 Outbreak Impacts on Economic Growth? an Evidence from Indonesia. *International Journal of Global Operations Research* 2021;2:88–95.
- [29] Mardhani M, Majid MSA, Jamal A, Muhammad S. Does International Tourism Promote Economic Growth? Some Evidence from Indonesia. *GeoJournal of Tourism and Geosites* 2021;37:775–82.
<https://doi.org/10.30892/gtg.37306-708>.
- [30] Mahadevan R, Amir H, Nugroho A. Regional Impacts of Tourism-Led Growth on Poverty and Income Inequality. *Tourism Economics* 2017;23:614–31. <https://doi.org/10.5367/te.2015.0534>.
- [31] Rumawak I, Djijanto L, Nurjannah N, Martalia D, Pertiwi HP, Pracintya IAE. Perencanaan Destinasi Pariwisata. PT. Sonpedia Publishing Indonesia; 2025.
- [32] Ashoer M, Revida E, Dewi IK, Samosir S, Sefina R, Islahuddin, I. Meganingratna A, et al. Ekonomi Pariwisata. 1st ed. Yayasan Kita Menulis; 2021.
- [33] Kadir N, Karim MZA. Tourism and Economic Growth in Malaysia: Evidence from Tourist Arrivals from ASEAN-5 Countries. *Economic Research-Ekonomska Istraživanja* 2012;25:10:89–100.
<https://doi.org/10.1080/1331677X.2012.11517550>.
- [34] Kim N, Song H, Pyun JH. The Relationship among Tourism, Poverty, and Economic Development in Developing Countries. *Tourism Economics* 2016;22:1174–90. <https://doi.org/10.1177/1354816616669038>.
- [35] Amnar S, Muhammad S, Syechalad MN. Pengaruh Pariwisata terhadap Pertumbuhan Ekonomi di Kota Sabang. *Jurnal Ekonomi Dan Kebijakan Publik Indonesia* 2017;4:13–22.
- [36] Chulaphan W, Barahona JF. Contribution of Disaggregated Tourism on Thailand's Economic Growth. *Kasetsart Journal of Social Sciences* 2018;39:401–6. <https://doi.org/10.1016/j.kjss.2017.07.012>.
- [37] Sari RY. Pengaruh Tingkat Hunian Hotel, Jumlah Wisatawan, dan Jumlah Objek Wisata terhadap Pendapatan Asli Daerah (PAD) Kota Padang Tahun 2003–2012. *Pendidikan Ekonomi* 2014;4:29973.
- [38] Napitupulu RB, Simanjuntak TP, Hutabarat L, Damanik H, Harianja H, Sirait RTM, et al. Penelitian Bisnis, Teknik dan Analisa dengan SPSS-STATA-EViews. Madenatera 2021.
- [39] Agus I, Sari IP. Determinan PDRB Sektor Pariwisata di Provinsi Jawa Tengah. *Jurnal Ekonomi* 2021;23:116–29.
- [40] Zubir E, Hartono D, Kharis SAA. Pengaruh Realisasi Anggaran Kesehatan, Anggaran Pendidikan dan Pariwisata terhadap Penanggulangan Kemiskinan di Provinsi Jawa Barat. *EKOMBIS REVIEW: Jurnal Ilmiah Ekonomi dan Bisnis* 2023;11:397–404.
- [41] Dwiningwarni SS, Suyanto S, Andari SYD. Kunjungan Wisatawan dan Dampaknya terhadap Pengangguran Terbuka dan Pengentasan Kemiskinan. *Movere Journal* 2024;6:449–72.
- [42] Asmyndar DI, Marseto M, Sishadiyati S. Pengaruh Produk Domestik Regional Bruto, Tingkat Hunian Hotel, dan Jumlah Wisatawan terhadap Pendapatan Asli Daerah di Kota Batu. *Al-Buhuts* 2021;17:76–91.
<https://doi.org/10.30603/ab.v17i2.2280>.
- [43] Lucitania EP, Rahayu A. Pengaruh Sektor Pariwisata terhadap Tingkat Kemiskinan Kabupaten/Kota di DIY Pasca Pembangunan Yogyakarta International Airport, 2016–2021. *Jurnal Penelitian Ekonomi Manajemen Dan Bisnis* 2023;2:106–25.