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The Influence of Attractions and Accommodations on Enhancing Tourism Output in Indonesia

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Abstract

This study investigates the impact of tourism attractions and accommodations on the growth of tourism output in Indonesia. Covering 33 provinces, the research utilizes data from the Central Bureau of Statistics (BPS) and the Directorate General of Fiscal Balance (DJPK) of Indonesia. Using the Generalized Least Squares (GLS) panel data regression model, the study evaluates the relationship between these variables and tourism output. The results reveal that all examined variables significantly influence tourism output growth. Tourism attractions contribute positively and significantly, indicating their vital role in enhancing tourism performance. Similarly, accommodations, proxied by hotels and restaurants, demonstrate a significant positive effect. Additionally, government spending on tourism shows a strong and positive impact on output growth. The study highlights the importance of investing in high-quality tourism attractions, strengthening the accommodation sector, and optimizing government budget allocations for tourism. These efforts are essential to improving the competitiveness of tourism destinations and maximizing their economic contributions, aligning with the RPJMN 2025–2029 and Indonesia's Vision 2045.

Keywords: tourism attractions, accommodations, government expenditure

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INTRODUCTION

The tourism sector is a dynamic driver of economic growth, alongside the industrial and trade sectors. Several economic sectors experience output growth due to the role of tourism, including trade, food and beverage services, and other service sectors. Tourist attractions are indicators of tourism that can enhance the output of other economic sectors. For instance, the trade sector supplies goods needed for tourism, while service sectors such as hotels and restaurants are often developed in tourist areas to meet the needs of visitors.

The tourism sector has significantly contributed to economic growth. Research by Kurniawan et al. (2024) highlights that tourism expands employment opportunities, thereby increasing community income. Tourism activities drive labor demand, which positively impacts regional economic development. Similarly, Sundoro et al. (2022) found that the growth of the tourism sector boosts employment, enabling workers to earn income. This, in turn, raises per capita income in a region, contributing to economic growth and regional GDP. Aliansyah and Hermawan (2019) showed that the tourism sector stimulates the establishment of hotels and restaurants. Komuna et al. (2021) demonstrated that tourism, represented by the number of tourists, significantly impacts economic growth. Sabrina and Huda (2023) found that tourism, measured by the number of tourists and restaurants, positively influences economic output. The number of tourists plays a vital role in boosting economic output. Simorangkir et al. (2024) also confirmed that the tourism sector promotes economic growth through the development of hotels and restaurants. According to Fitriani (2018), the government should leverage national and regional tourism potentials to enhance the tourism sector's contribution. Regions with significant tourism potential increase business opportunities and create local jobs, thus boosting foreign exchange earnings through tourism. In line with Vision Indonesia Emas 2045, the tourism sector is positioned as a primary driver for Indonesia to become a developed nation and one of the world's largest economies. By 2045, the tourism sector is projected to contribute 6.1% to the national economy. Tourism is a strategic development priority aimed at enhancing Indonesia's competitiveness in regional and global markets. According to the preliminary design of RPJMN 2025–2029, tourism is designated as a national priority sector focused on quality and sustainability. The primary goal is to increase tourism's GDP ratio to 5% by 2029. Although the annual target of 5% has been met, tourism's contribution remains below that of agriculture, industry, construction, and trade, all of which exceed 10% annually. The figure below illustrates the gap, underscoring the need to improve tourism sector performance to enhance its contribution to economic growth.

Although the tourism sector has experienced growth in recent years, its contribution to GDP remains relatively small. This is due to several factors hindering the sector, such as uneven distribution of tourist attractions across regions, limited supporting infrastructure, and the quality of human resources. Research indicates that the tourism sector does not significantly impact regional economic growth. For instance, Fitriani (2018) found that tourism negatively affects economic growth, with the sector being overshadowed by the more dominant industrial sector in driving economic growth. Similarly, Hasriadi et al. (2023) concluded that the tourism sector does not significantly influence regional economic activities. Regional economic improvement is driven by other economic sectors, not solely tourism. The development of the tourism sector relies heavily on the support of attractions, accommodations, and government policies. Attractions serve as tools to attract tourists and enhance tourism destinations, encompassing natural, cultural, historical, and man-made attractions. Attractions are key to increasing tourist visits, which in turn drive the growth of tourism output. However, the uneven distribution of tourist attractions across regions indicates that local governments have yet to optimize the development of the tourism sector.

This disparity is evident in the concentration of tourist attractions in certain regions. Only a few provinces, such as Bali, Yogyakarta Special Region (DIY), West Java (Jabar), Central Java (Jateng), East Java (Jatim), and North Sumatra (Sumut), have a significantly higher number of attractions compared to other provinces. Regions with a higher number of attractions have greater opportunities to boost tourism output.

Several studies explain the positive relationship between attractions and tourism output and tourists. For example, Faur and Ban (2022) found that destination management, alongside the presence of natural and man-made attractions, as well as various tourism services, influences tourists' decisions to vacation. The identification of tourism elements is a key consideration for stakeholders when carrying out tourism activities. Risfandini et al. (2022) highlighted that tourist attractions are a determining factor for the competitiveness of tourist destinations, driving the growth of the tourism sector. Destination management involves organizing, identifying potential, formulating strategies to enhance destination competitiveness, creating synergies, addressing issues that could weaken competitiveness, and managing tourism during crises. Utama et al. (2021) noted that the uniqueness of attractions will encourage tourists to visit the destination area, thus increasing tourism output. Boivin and Tanguay (2018) conducted an analysis and showed that tourists recognize attractions at four levels: context, tourist zone, complementary attractions, and the core. Elements related to tourist zones, such as public spaces and urban environments, are considered the most important. Viveiros de Castro et al. (2015) found that tourist attractions can be predicted through reputation, recreational facilities, nearby attractions, and population density, indicating the progress of tourism attractions based on tourist interest.

Regions that provide quality accommodations are more likely to attract both domestic and international tourists. Accommodations managed with local community involvement, such as through village tourism programs or ecotourism development, can positively impact job creation. Furthermore, having suitable accommodations to meet tourists' needs can boost the local economy in the long run. Local governments must strategically plan the tourism sector to support Indonesia's 2045 Vision. Accommodation plays a role not only in increasing tourist visits but also in fostering sustainable tourism development. Variations in the number of accommodations are often linked to differences in tourist arrivals across regions. Research by Hernandez et al. (2021) shows that accommodation services targeting various tourist segments are typically found in diverse destinations. Paulino (2021) found that hotels are located close to popular tourist areas. Transportation infrastructure also plays a vital role in supporting tourism needs, including hotels and restaurants. Studies by Salsabilla and Setyowati (2023) show that hotels positively influence tourism by increasing the number of available accommodations, making them key to the growth of the tourism sector. The tourism sector plays a key role in achieving Indonesia's 2045 Vision and is an important part of the RPJMN 2025-2029. It is seen as a driver of economic growth, job creation, and public welfare. Although the sector has significant potential, tourism development remains uneven across regions. Popular destinations like Bali and Yogyakarta have seen notable progress, while other areas with considerable tourism potential are still underdeveloped. This disparity poses a challenge for achieving the 2045 Vision. Key factors such as the development of attractions, hotels, and restaurants, along with government policies and budgeting, need evaluation to overcome these barriers. This study will analyze the impact of attractions, accommodations (hotels and restaurants), and government policies on the tourism sector’s output, supporting the RPJMN 2025-2029 and Indonesia's 2045 Vision.

RESEARCH METHODS

This study employs a quantitative approach using panel data regression to analyze the impact of tourist attractions, accommodations, and government spending on the output of the tourism sector. Secondary data was obtained from the Central Statistics Agency (BPS) and the Directorate General of Fiscal Balance (DJPK) of the Republic of Indonesia, covering 33 provinces over a specific period. The dependent variable in this study is the output of the tourism sector, measured through tourism GDP (PDRB pariwisata), while the independent variables include the number of tourist attractions (LNATT), the number of hotels (LNHOTEL), the number of restaurants (LNREST), and government spending in the tourism sector (LNGOV). The Generalized Least Squares (GLS) model is used to address issues of heteroscedasticity and autocorrelation in panel data, with model selection based on Chow and Hausman tests. Data analysis is conducted in stages, starting with descriptive analysis to understand the data distribution, followed by testing the best model using Fixed Effect Model (FEM) or Random Effect Model (REM), and then performing panel data regression with the GLS method.

RESULTS AND DISCUSSION

The descriptive statistical analysis in this study, as shown in Table 1, explains the mean, maximum, minimum, and standard deviation for each independent variable. The descriptive statistics for the mean show that the restaurant variable (LNREST) has an average of 2.9481, indicating a relatively high number compared to the other variables. The median value for the restaurant variable (LNREST) is 2.5779, suggesting that most restaurants tend to have higher values. The maximum value for the LNREST variable is 3.7326, indicating that some regions have a very high number of restaurants. The government expenditure variable (LNGOV) has the highest minimum value compared to other variables. The restaurant variable (LNREST) has the highest standard deviation among the other independent variables, indicating a high level of variation or diversity in the distribution of government expenditure data.

Table 1. Descriptive Statistics

Variabel	Mean	Median	Maximum	Minimum	Std.Dev
LNATT	1,5784	1,4472	2,7235	0,6021	0,5004
LNHOTEL	1,6270	1,6385	2,7419	0,0000	0,5317
LNREST	2,4981	2,5779	3,7326	0,3010	0,7851
LNGOV	1,0185	1,0374	1,1697	7,4771	0,7734

Source: Eviews

The results of the Chow test show a probability below the alpha level of 0.05, indicating that the appropriate panel data model for this study is the Fixed Effect Model (FEM). The FEM results in this study will be further tested using the Hausman test. The Hausman test results show a probability below the alpha level of 0.05, which allows the conclusion that the panel data model should use FEM.

Table 2. Chow Test and Hausman Test

Test	Statistic	d.f.	Prob
Chow	603.671.598	32	0.0000
Test	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob
Hausman	10.027.999	4	0.0400

Source: Eviews

The panel data regression results using the Fixed Effect Model with the Generalized Least Squares (GLS) method will be discussed in this study to analyze the effect of independent variables on the dependent variable. The independent variables in this study include attractions, the number of hotels, the number of restaurants, and government expenditure in the tourism sector, while the tourism output, proxied by the GDP of the tourism sector, serves as the dependent variable. The coefficients in the table below will be analyzed to assess the impact of the independent variables on the dependent variable.

Table 3. Result Regression

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.656303	0.076378	3.477827	0.0000
LNATT	0.135118	0.035012	3.859188	0.0001
LNHOTEL	0.272776	0.018289	1.491462	0.0000
LNREST	0.017426	0.009315	1.870715	0.0627
LNGOV	0.017063	0.004667	3.655774	0.0003
R-squared	0.550821			
Ad R-squared	0.543884			
F-statistic	7.940.204			
Prob(F-statistic)	0.000000			

Source: Eviews

Table 3 indicates a constant coefficient value of 2.656303, suggesting that when all independent variables are zero, the baseline tourism output is 2.656 (265.6%). The attraction variable significantly impacts tourism output, with a coefficient value of 0.135118, indicating that a 1% increase in attractions will increase tourism output by 0.135%, ceteris paribus. Attractions are a key element driving tourism demand, creating satisfaction for tourists. The performance of attractions influences tourists' decisions to visit and their spending behavior.

This aligns with consumer demand theory, where tourists allocate time and resources to destinations that offer desired value and experiences. High-quality attractions provide satisfaction and encourage repeat visits. Tourists are willing to pay when attractions offer positive values such as aesthetics, education, and entertainment. These findings are consistent with Gani (2016), which highlights that perceptions, tourist satisfaction, and attractions are primary factors influencing tourists' behavior and motivation for repeat visits. Priambudi et al. (2021) found that attractions and facilities simultaneously affect tourist satisfaction, with both variables having a dominant influence. Salsabila et al. (2023) also identified that attractions and tourism facilities positively influence tourist satisfaction.

The role of attractions in economic growth aligns with Arianti (2014), which demonstrated that tourism attractions have strong linkages with other sectors to drive tourism output growth. Similarly, Bire et al. (2022) explained that tourism attractions could increase employment, which is expected to further enhance tourism output growth.

The hotel variable has a positive and significant effect on tourism output, with a hotel coefficient (LNHOTEL) value of 0.272776. This indicates that a 1% increase in the LNHOTEL value will raise tourism output by 0.272776%, ceteris paribus. Similarly, the restaurant variable (LNREST) has a positive and significant effect on tourism output, with a coefficient value of 0.017426. This means that a 1% increase in the availability of restaurants will boost tourism output by 0.017426%, ceteris paribus.

Accommodation, proxied by hotels and restaurants, serves as a critical facility supporting the tourism sector and enhancing tourism output. It is a key link in the tourism value chain, providing lodging services as a basic need for travelers during their trips. The availability of accommodations in tourism destinations meets the needs of visitors during their stay. Increased accommodation availability also contributes to regional revenue, as tourists incur expenses during their visits. These findings align with Adika and Dwiputri (2021), who found that local governments can enhance the accommodation sector through hotels and restaurants to boost regional revenues. Rizkova (2016) highlighted that accommodation development, as measured by occupancy rates, can improve tourism output. Similarly, Sugiarto (2024) emphasized that the provision of accommodations contributes to the growth of the tourism sector.

The government expenditure variable in the tourism sector (LNGOV) has a significant impact on tourism output, with a coefficient value of 0.017063. This indicates that a 1% increase in government expenditure in the tourism sector will result in a 0.017063% increase in tourism output, ceteris paribus. These regression results align with the findings of Mukaffi and Haryanto (2022), which demonstrate that government expenditure in the tourism sector can enhance tourism revenues and foster economic growth. Government budgets allocated to the tourism sector are often used for marketing efforts aimed at attracting more tourist visits, which, in turn, are expected to boost tourism output. Additionally, government spending in the tourism sector serves as public investment, focusing on infrastructure development such as roads, airports, ports, and transportation systems. These findings are consistent with Hayati (2022), who emphasized that the tourism sector must be supported by adequate infrastructure to enhance regional economic development.

Government expenditure can be utilized for the promotion and marketing of tourist destinations both domestically and internationally. Certain demands within the tourism sector rely on government spending to enhance the quality of services at tourist destinations. Government expenditure can have a direct impact on advancing tourism by improving facilities to facilitate tourist visits while considering aspects such as accessibility, destination quality, and visitor comfort. Study from Sukirman (2017) highlighted that government budget allocations aimed at marketing various tourist attractions are effective in attracting visitors to local destinations.

CONCLUSION

Tourist attractions, accommodations, and government expenditure significantly influence the growth of the tourism sector and related economic output. Attractions can enhance tourist satisfaction, motivating them to revisit. Increased tourist visits contribute to the growth of tourism output. High-quality attractions are interconnected with other sectors to drive tourism output growth (Arianti, 2014), including job creation (Bire et al., 2022). The government and stakeholders need to prioritize the development and maintenance of high-quality tourist attractions that offer aesthetic, educational, and recreational value. This includes investing in infrastructure, preserving cultural and natural heritage, and ensuring that attractions meet international standards to enhance tourist satisfaction and encourage repeat visits.

The availability of accommodations, such as hotels and restaurants, is essential to meeting tourists' needs, enhancing tourism output, and contributing to local revenue. Hotels and restaurants in tourist destinations form a critical part of accommodations that support the basic needs of travelers during their journeys. An increase in the availability of accommodations is expected to boost tourism output. The government and stakeholders need to promote investment in accommodations, such as hotels and restaurants, particularly in strategic tourism areas. This can be achieved through offering incentives, simplifying the licensing process, and providing tax benefits to attract private sector involvement. Local governments need to plan and regulate the development of accommodations near tourist attractions, making it easier for tourists to access and enhancing their comfort during their trip.

Government spending in the tourism sector, used for infrastructure and promotion, has a significant impact on increasing tourism output. Public investment in tourism infrastructure such as roads, airports, and ports supports accessibility and tourist comfort. The allocation of government funds for destination marketing has been shown to enhance the attractiveness of specific locations to tourists. The government needs to allocate a portion of the tourism sector budget for destination marketing and promotion activities. Targeted campaigns, both domestically and internationally, can effectively increase tourist interest and visits to specific destinations, which in turn will boost the economic output of the tourism sector.

The role of the tourism sector in supporting the RPJMN 2025-2029 and Vision Indonesia 2045 requires the government to implement policies that enhance the quality of attractions, accommodations, and government spending in the tourism sector. The government needs to plan a budget for the development of tourist attractions that consider aspects of aesthetics, education, and entertainment. Promotion of tourist attractions should be improved using digital platforms that can reach both domestic and international markets. The management of attractions should involve collaboration between the government, private sector, and local communities to ensure direct economic benefits. The government should strengthen the accommodation sector for potential tourism destinations by providing incentives to business actors. To ensure tourists' comfort and safety, the government should encourage certification and standardization of accommodations. Government funding should be allocated to enhance the tourism sector through the development of tourism infrastructure such as roads, ports, and airports. Tourism promotion can be improved through government budgets aimed at developing supporting facilities, such as transportation information services, accommodations, and tourist attractions.

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