

JURNAL EKONOMI KUANTITATIF TERAPAN

Health Policies: Bolstering Human Resources & Healthcare Systems to Reduce Crude Death Rates in 2^e Countries
Mohamed Sesay, Rudi Purwono, Ni Made Sukartini

Downstream of Leading Primary Sector Industries in Papua Island
Albertus Girik Allo, Manda Sarungallo, Roni Bawole

Assessing Efficiency and Productivity of Micro and Small Industries: An Empirical Study in North Kalimantan
Ariani, Charitin Devi, Settingssulistya Rini Pratiwi, Yohanna Thresia Nainggolan, Wong Sing Yun

Are MSMEs the Key to Poverty Reduction? Dynamic Evidence from Indonesia Utilizing ARDL Analysis
Azhari, Musrizal Musrizal, Win Konadi

Financial Inclusion and Welfare: Comparison between Male-Headed and Female-Headed Households
Lita Jowanti, SettingsBudiono, Anhar Fauzan Priyono

The Role of Amenities and Accessibility on Domestic Tourism Demand in Indonesia
Maya Dethan, Khoirunurrofik

Analysis Of Participation Of Persons With Disabilities In The Labor Market
Ida Ayu Gde Dyastari Saskara, Diah Pradnyadewi

Smoking Cessation In Indonesia: Kick The Habit Today Or Is It Wiser To Hold On Forever?
Miftah Amalia Putri, I Dewa Gede Karma Wisana

Measuring Social Capital in Indonesia: An Item Response Theory (IRT) Approach
Nurul Islamy, Rus'an Nasrudin

The Role of Amenities and Accessibility on Domestic Tourism Demand in Indonesia

ABSTRACT

Tourism sector is one of the key sectors in the national economy. This study aims to analyze the impact of amenities and accessibility on domestic tourism demand in Indonesia using the Fixed Effect Model (FEM) with panel data. The results show that the number of hotels and road quality have a positive and significant effect on the number of domestic tourist trips, while airport and port infrastructure do not significantly influence tourism demand. Additionally, per capita income is identified as a major determinant of domestic travel decisions. It implies that the government should increase in the provision of road infrastructure and support the growth of the hotel sector to stimulate domestic tourism. Tourism industry's stakeholders should also optimize land-based travel promotions and provide more accommodation options suitable for various tourist segments.

Keywords: Domestic tourism, Transportation, Fixed Effect Model, Hotel

JEL Classification: Z32, L83, B23, R41, O18

INTRODUCTION

The global tourism industry operates within a dynamic and ever-evolving landscape, where understanding the key drivers of tourist mobility is essential for crafting effective and sustainable development strategies. Annual research from the World Travel & Tourism Council (2024) shows that by 2023 the travel and tourism sector contributed 9.1% to global GDP, 10% to global employment and created 27 million new jobs. This shows the importance of tourism in moving the wheels of the economy globally.

Indonesia has significant tourism potential, supported by its rich cultural heritage, biodiversity, and diverse natural landscapes. The Travel and Tourism Development Index (TTDI) published by the World Travel & Tourism Council (2024) indicates that Indonesia ranks 22nd globally and 6th in the Asia-Pacific region. This means that Indonesia's travel and tourism sector is sustainable and quite competitive at the global level. The tourism sector in Indonesia also plays a significant role in national economic and social conditions, both in increasing employment and

reducing poverty (Roy, 2010;Riyanto et al., 2020;Suparman et al., 2024).

Promoting tourism flows has become a key priority for the Indonesian government. As outlined in the Rencana Pembangunan Jangka Menengah Nasional (RPJMN) 2020–2024, one of the president’s principal directives is to drive economic transformation by enhancing the competitiveness of modern manufacturing and service sectors. Within this framework, tourism plays a central role, with the establishment of Super Priority Destinations (Destinasi Super Prioritas/DSP) serving as a core strategy in the national tourism development agenda. This government-led initiative is intended to strengthen Indonesia’s position in the global tourism market by cultivating new flagship destinations. The designation of five DSPs reflects a targeted effort to increase tourist interest—both domestic and international—through the development of key supporting infrastructure, particularly in terms of accessibility, amenities, and

telecommunication networks (Indonesian Ministry of Tourism, 2025).

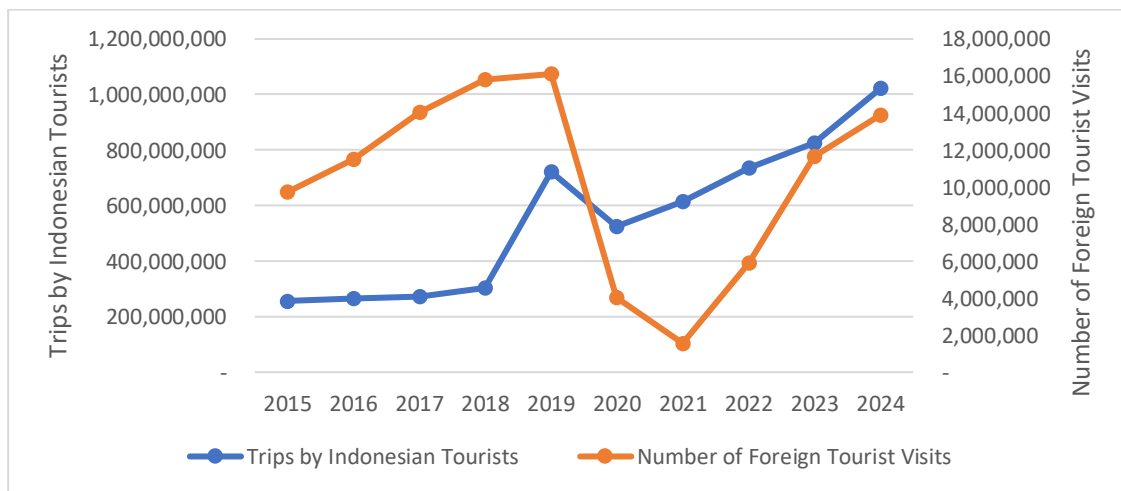
Although the government has prioritized the development of amenities and accessibility in the implementation of Super Priority Destinations (DSP), previous studies have produced mixed findings regarding the extent to which these factors influence tourist attraction. The availability of hotels attracts foreign tourists (Muryani, Permatasari and Esquivias, 2020), while it is insignificant in attracting domestic tourists (Dwi Setiawati and Firdaus, 2023). Public infrastructure investment also does not have a significant influence in attracting domestic and foreign tourist visits (Budirahmayani & Khoirunurrofik, 2019;Muryani et al., 2020).

Previous research in Indonesia related to tourism demand still dominantly focuses on foreign tourism, even though the domestic tourism sector is also a very important part of Indonesia. The tourism sector in Indonesia in general continues to grow until 2019. In 2020, the COVID-19 pandemic occurred globally including

in Indonesia, which caused significant disruption to various sectors especially the tourism industry. Figure 1 illustrates that in 2020, the tourism sector (both international and domestic) experienced a significant downturn due to external shocks. However, domestic tourism demonstrated a quicker rebound, returning to its pre-pandemic trend

more rapidly. This indicates a relatively faster recovery of the domestic tourism sector compared to international tourism in the post-pandemic period. Previous research by Riyanto et al. (2020) even showed that domestic tourism has a greater impact in reducing poverty in Indonesia.

Figure 1: Number of Trips by Indonesian Tourists and Number of Foreign Tourist Visits in Indonesia in 2015-2024



Source: BPS, processed by author

Given the critical role of domestic tourism in supporting the national economy, there is a growing need to advance research specifically focused on domestic tourism in Indonesia. However, existing studies on tourism in the country remain largely concentrated at the provincial level, as seen in the

works of Budirahmayani & Khoirunurrofik (2019); Muryani et al. (2020); and Dwi Setiawati & Firdaus, (2023). This highlights the necessity for more granular analyses, particularly at the district or city level, to better capture the dynamics and regional variations of domestic tourism. In fact, the

aggregation level in the analysis unit is high and has the potential for biased results due to regional aggregation (Alvarez-Diaz et al., 2020).

Accordingly, this study aims to further investigate the influence of amenities and accessibility on the attraction of domestic tourists in Indonesia. The key novelty of this research lies in its use of more

disaggregated data, district-level data, which remains relatively underutilized in the existing body of literature on Indonesian tourism that are in provincial level. By employing more granular data, this study seeks to provide a deeper understanding of spatial variations in domestic tourism flows and contribute to more targeted policy recommendations.

In addition, the novelty offered by this study will utilize data sourced from *Mobile Positioning Data* (MPD) by the Central Statistics Agency which has just begun to be released for 2019 data. This MPD produces the most easily updated data periodically because it utilizes network and telecommunication technology, both actively (with GPS) and passively (with telephone and text messages). Although according to BPS in the publication *Statistik Wisatawan Nusantara*, the MPD data still has various limitations, particularly in accurately determining locations in border areas, this method remains the best available approach to capture the

rapidly changing real-time domestic tourism mobility in Indonesia.

Tourism Theory and Determinants of Tourism

A tourist trip refers to a travel undertaken by a visitor to a main destination outside their usual environment, for less than one year, for any main purpose other than to be employed by a resident entity in the place visited (BPS-Statistics, 2024). In defining tourist destinations, United Nation (2010) defining the main destination as a place to visit is the main reason or place to spend most of its time or the farthest location visited from the usual place of residence. *Visit destination*

is all places that are stopped during the tourist trip do not need to stay as long as tourists come to the tourist attraction and or visit for at least 6 hours. Domestic tourism demand in this study will use *the number of visit destinations* generated by BPS-Statistics through the MPD method.

In examining tourism demand, it is essential to consider the underlying theory of demand determinants. The demand for a good or service is generally influenced by two primary factors: price and income. According to the Law of Demand, holding other factors constant (*ceteris paribus*), the quantity demanded of a good tends to increase when its price decreases and/or when consumer income rises (Mankiw, 2015). This fundamental

economic principle also applies to tourism, where travel demand may respond to changes in the cost of tourism-related goods and services, as well as variations in household income. However, in various sources, it is stated that basically tourism demand is a complex demand for services. Tourism demand is also affected by other factors. The '4A's in tourism' theory shows that amenities, accessibility, attractions, and other complementary services are the main core determinants of tourism demand (Cooper et al., 1998). Fletcher et al., (2018) mentioned that there are three major factors that affect tourism demand namely economic, socio-psychological, and exogenous factors. In detail, the main factors affecting tourism demand are mentioned in Table 1.

Table 1: The main factors influencing tourism demand

Economic Factors	Social-Psychological Factors	Exogenous Factors
Disposable income	Demographic factors	Availability of supply resources
GDP per capita	Motivation	Economic growth and stability
Personal consumption	Travel preferences	Political and social environment
Cost of living (CPI)	Benefits sought	Recession
Tourism prices	Destination image	Technological advancements
Transportation costs	Destination perception	Accessibility
Cost of living in destinations	Awareness of opportunities	Rate of development of infrastructure, and superstructure
Exchange rate difference	Cognitive distance	Natural disasters
Price comparison between destinations	Attitude towards destinations	Epidemic
Promotional expenses	Available free time	War, terrorism
Marketing effectiveness	Available travel times	Social and cultural appeal
Physical distance	Paid holidays	Rate of urbanization
Previous experience		Special factor/Olympics, other major events
Life expectancy		Obstacles and obstacles
Physical capacity, health, and well-being		Restrictions, rules, and laws
Cultural similarities		
Affiliate		

Source: Fletcher et al., (2018) adopted from Uysal, 1998

Previous Empirical Studies

Tourism demand is often measured either by the number of tourist arrivals, the number of nights tourists stay, or tourist spending at the destination (Ouerfell, 2008). The selection of these indicators depends on the objectives of the study itself. Ouerfell (2008) chose the number of

foreign tourist arrivals because in the end, the goal of the decision-makers in building tourism is to bring more tourists to Tunisia. Hanif Othman et al., (2018) also uses indicators of the number of tourist arrivals for reasons of data availability and suitability with the purpose of the research. Study in Indonesia by Muryani et al. (2020) using

tourist spending because it wants to illustrate tourism demand. The latest research from Ko Minh (2024) also uses the number of foreign tourist arrivals to Vietnam.

Research on domestic tourism demand also uses a variety of indicators. The study on domestic tourism in the city of Guilin by Bao & Xie (2019) utilizes the percentage of tourists from various administrative regions within China who visit Guilin. This analysis is based on annual domestic guest records collected from several hotels in the city, providing a detailed overview of tourism flows from different provinces. Massidda & Etzo (2012) using the number of registered domestic tourist arrivals per region per year in Italy. Alvarez-Diaz et al. (2020) uses a natural logarithm of the number of domestic tourist trips from the province of origin to the province of destination with the intention of reducing the variablitas of the data and allowing interpretation as elasticity.

Previous research has quite a lot of discussion related to the influence of amenities and accessibility in attracting

tourists. Tourism amenities refer to the physical infrastructure and services that are essential for supporting the needs of tourists during their visit. These include accommodations, restaurants, shops, and other facilities that contribute to a comfortable and convenient travel experience. Nguyen (2021), Naudé & Saayman (2005), and Khadaroo & Seetanah, (2008) prove that the number of amenities, in this case the number of accommodations and/or the number of restaurants, has a positive and significant impact on tourism demand both foreign and domestic. Muryani et al., (2020) found that the increasing availability of amenities, in this case more and more hotels, will attract more foreign tourists to visit Indonesia. Dwi Setiawati & Firdaus (2023) found that amenity in this case the availability of accommodation did not have a significant influence in attracting domestic tourism demand in Indonesia.

Accessibility refers to the transportation options available to reach a destination, including land, sea, and air travel, as well as the supporting public infrastructure that facilitates ease

of movement for tourists. Khadaroo & Seetanah (2007) proves that good road infrastructure increases the demand for tourists to an area. Accessibility, which is also described by air transportation access, is one of the factors that influence a tourist to choose to travel to a destination. Giap et al., (2016) also shows that the improvement of airport facilities is a significant determinant of the growth of the travel and tourism industry. Meanwhile, investment in public infrastructure is not significant in influencing domestic and foreign tourism demand (Budirahmayani & Khoirunurrofik, 2019; Muryani et al., 2020).

RESEARCH METHODS

To measure domestic tourism demand, this study uses the number of trips of Indonesian tourists calculated by BPS through the *Mobile Positioning Data* method. To describe amenities, this study used a variable of the number of star and non-star hotels. For accessibility, this study uses three variables, namely the percentage of roads with good condition from the

Indonesian Ministry of Public Works, the existence of airports, and the existence of ports from the Indonesian Ministry of Transportation. The three accessibility variables are representative of each land, air, and sea access. Meanwhile, for the control variables, this study uses per capita income and destination population density as an overview of the social and economic conditions of the destination area.

The analysis units used in this study are in the form of panels in 514 regencies in 2020-2023, so that the total analysis units are 2,056. This year's selection is in accordance with the purpose of this research itself, which is to see how the influence of accessibility and amenities that are the focus of tourism development in attracting domestic tourism. In addition, the use of unit analysis at the district level distinguishes from previous studies still using provincial (Dwi Setiawati and Firdaus, 2023) and national levels (Tantowi, 2022) which have the potential for regional aggregation bias because it does not capture the diversity of data

between regencies (Alvarez-Diaz et al., 2020).

Empirical Model

In panel data regression, the stationarity assumption is a critical consideration to ensure the validity of statistical inferences. Nevertheless, due to the relatively short time dimension of the dataset (comprising only four annual observations) the risk of non-stationarity bias is substantially reduced (Baltagi, 2013). As a result, the stationarity issue is considered negligible and is not formally addressed in this analysis.

In panel data regression, two commonly used models are the Fixed Effects Model (FEM) and the Random Effects Model (REM). It is essential to conduct a test to determine which of these models provides the most appropriate estimation for this study. To ensure the selection of the most efficient and consistent estimation model, this study applies the Hausman specification test. Following the estimation of both the FEM and the REM, the Hausman test is often applied as a formal

procedure to detect whether the unique errors are correlated with the regressors. However, as emphasized by (Wooldridge *et al.*, 2016) the Hausman test should not be viewed as the only or exact way to test for the consistency of FEM versus REM, but rather as one practical tool among others. The outcome of this test guides the selection of the appropriate model by indicating whether the REM estimators are consistent or if the FEM is more suitable due to endogeneity concerns.

Following the estimation of the best-fitting regression model, a parameter significance test will be conducted to evaluate the research hypotheses. In this study, the Wald test is employed as the significance test for the parameters in the panel data regression analysis, applied to all independent variables. If the Wald test rejects the null hypothesis (H_0), it indicates that both the independent and control variables exert a statistically significant influence on tourism demand. To ensure the reliability and robustness of the model, and to minimize dependence on specific

assumptions, a robustness check will also be performed by incorporating all available combinations of control variables. The list of variables used in this study is presented in Table 2.

The expected outcome of this study was to see if there was an effect of accessibility (length of road, airport presence, and port presence) and amenity (number of available hotels) on

the increase in domestic tourist travel. Therefore, the model used in this study is:

$$\begin{aligned} LnTD_{it} = & \rho WLnTD_{it} + \beta_0 + \beta_1 DSP_{it} + \\ & \beta_2 Road_{it} + \beta_3 Airport_{it} + \\ & \beta_4 Harbor_{it} + \beta_5 LnHotel_{it} + \\ & \delta_1 LnGRDP_{it} + \delta_2 LnDensity_{it} + \varepsilon_{it}..(1) \end{aligned}$$

Where the definition of each variable can be seen in table 2.

Table 2: Operational Definitions of Variables, and Data Sources

	Variables	Definition	Unit	Source
<i>Tourism Demand</i>	TD_{it}	Number of domestic tourist trips to region i year t	Trip	BPS
<i>Accessibility</i>	$Road_{it}$	The percentage of road lengths with good condition of the region-i as a destination for <i>the year t</i>	Percent	Ministry of Public Works
<i>Accessibility</i>	$Airport_{it}$	Dummy variable for airport availability in region-i as a destination year t	0: no airport 1: There is an airport	Ministry of Transportation
<i>Accessibility</i>	$Harbor_{it}$	Dummy variable for the availability of passenger ports in region-i as a destination for <i>the year t</i>	0: no port 1: There is a port	Ministry of Transportation
<i>Amenity</i>	$Hotel_{it}$	Number of star and non-star hotels in the region-i as a destination for the second year	Unit	BPS
<i>Control</i>	$GRDP_{it}$	GDP per capita in the region-i as a destination for <i>the th year</i>	Billion	BPS
<i>Control</i>	$Density_{it}$	Population density in j-region as a destination for the year t	People/km2	BPS

Source: Author

RESULTS AND DISCUSSION

Destinations that are domestic tourism destinations in Indonesia are still dominated by the islands of Java and Bali (Figure 6). This shows that

there is still no equal distribution of domestic tourism travel between regions in Indonesia. This is in line with the condition of the quality of inter-district roads in Indonesia (Figure 3)

which is better in the Java and Bali regions than in other regions, especially in Eastern Indonesia.

Descriptively, this observation aligns with the theory proposed by Cooper et al., (1998), which suggests that improved accessibility is a key factor in increasing tourist visits.

Figure 2: Number of Hotels by Regency in Indonesia in 2023

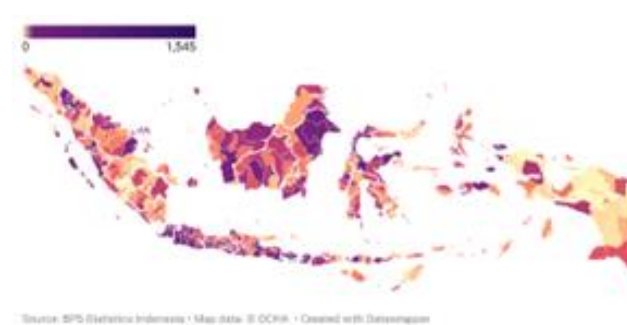
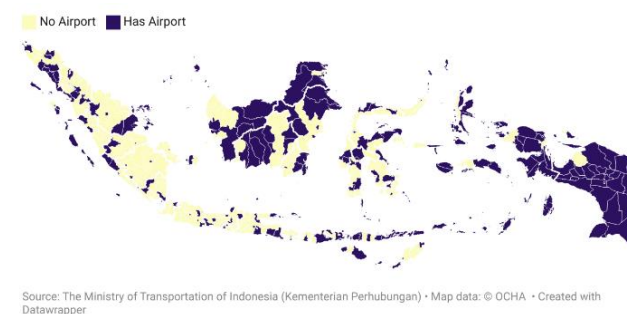


Figure 4: Airports by Regency in Indonesia in 2023



According to this theory, regions with better transportation infrastructure tend to attract more tourists due to the ease and convenience of travel. This idea is particularly relevant in the context of the current situation, where accessibility is closely linked to the availability and quality of transportation routes.

Figure 3: Percentage of Road Length in Good Condition by Regency in Indonesia in 2023

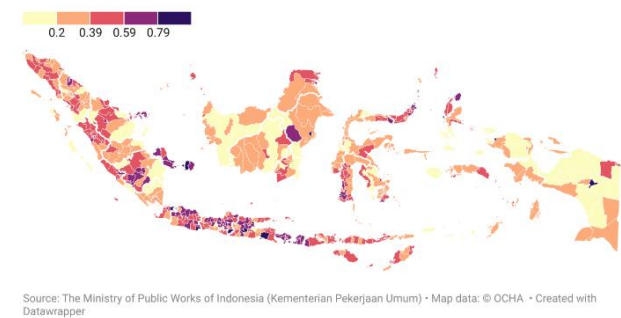


Figure 5: The Existence of Ports by Regency in Indonesia in 2023



In figures 4 and 5, it is evident that airports are predominantly concentrated in Eastern Indonesia and Kalimantan, while seaports are more commonly located in the provincial areas,

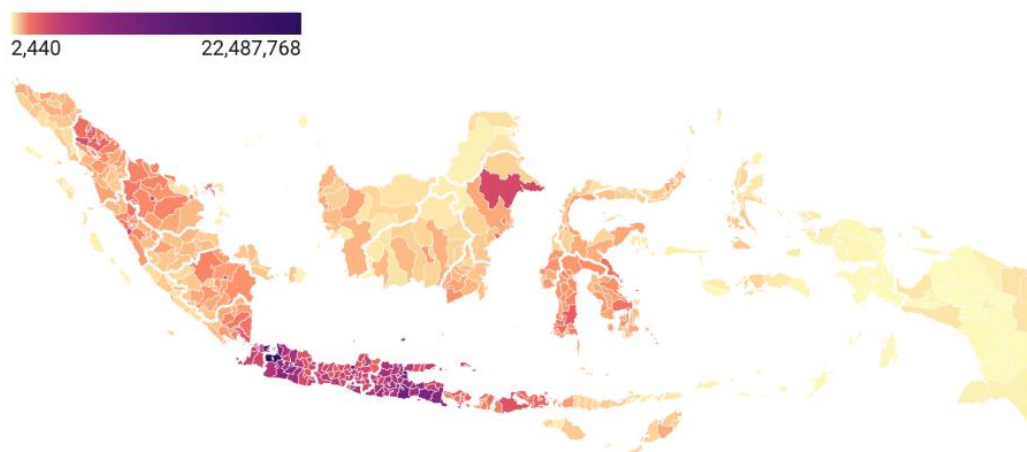
particularly on islands. These geographical patterns highlight the disparities in infrastructure development across the country, with different regions relying on different

forms of transportation to facilitate access. The concentration of airports in certain regions and seaports in others reflects the specific needs and characteristics of each area, with Eastern Indonesia and Kalimantan having the necessary air routes for long-distance travel, while the island provinces depend more on sea transport due to their geographical layout.

This pattern is consistent with the road quality condition depicted in figure 3, where the roads in the area are

still in poor condition, hindering efficient overland travel. As a result, there is a clear need for alternative access routes, particularly air and sea transport, to compensate for the inadequacies of the road network. As Fletcher et al., (2018) pointed out, the lack of proper infrastructure can significantly limit the potential for tourism development, and in such cases, alternative transportation methods become essential to connect regions and facilitate tourist mobility.

Figure 6: Number of Domestic Tourist Visits by Regency in Indonesia in 2023



Source: Mobile Positioning Data, BPS • Map data: © OCHA • Created with Datawrapper

Meanwhile, the condition of amenities in Indonesia (figure 2) is quite scattered except in the Papua area and its surroundings. The unavailability of hotels can make it difficult for tourists to

carry out tourist activities in destinations. It is evident that the largest expenditure of domestic tourists in Indonesia is for accommodation around 22.82% (BPS-Statistics, 2024).

Descriptively, the data used can be seen in table 3.

Overall, based on Table 3, the average number of domestic tourist trips across regencies in the archipelago from 2020 to 2023 is 1.3 million trips annually. The lowest number of domestic tourist trips was 968 trips in Intan Jaya Regency in 2020 and the highest at 22.49 million trips in Bogor Regency in 2023. Table 3 provides an overview of the variables used in the study, revealing significant variation across regions. Road quality, with an average score of 0.44 and varying from 0 to 99.72, indicates disparate

infrastructure. Similarly, the availability of airports (mean 0.37) and harbors (mean 0.42) varies by region. Hotel availability also shows large disparities, with a mean of 57 but a maximum of 1,753. Gross Regional Domestic Product (GRDP) and population density further reflect regional economic and demographic differences, with wealth and population concentration influencing tourism activities. This variability underscores the complex and region-specific nature of domestic tourism in Indonesia.

Table 3: Overall Descriptive Statistics

Variables	Obs	Mean	Std. Dev.	Min	Max
<i>TD_{it}</i>	2,056	1,314,187.00	2,252,699.00	968.00	22,487,768.00
<i>Road_{it}</i>	2,056	0.44	0.22	0	99.72
<i>Airport_{it}</i>	2,056	0.37	0.48	0	1
<i>Harbor_{it}</i>	2,056	0.42	0.49	0	1
<i>Hotel_{it}</i>	2,056	57.05	119.03	0	1,753.00
<i>GRDP_{it}</i>	2,056	39,878.77	51,320.39	3,969.00	927,230.50
<i>Density_{it}</i>	2,056	1,098.94	2602.797 1	0.09	22,061.00

Source: Processed by the Author (STATA 18)

The model selection process is crucial in panel data analysis, and the Hausman test is a standard method to determine whether to use a Fixed Effects

Model (FEM) or a Random Effects Model (REM). The Hausman test result with a probability value of 0.0000 indicates that the Fixed Effects Model

(FEM) is more appropriate for this study. This suggests that the individual heterogeneity (differences across regions) is likely correlated with the independent variables, making the FEM a better choice for capturing the unique characteristics of each region. The use of FEM helps control for unobserved heterogeneity that could bias the results if ignored.

The inclusion of GDP per capita and population density as control variables in the model strengthens the analysis. These variables are important as they capture broader economic and demographic factors that could influence domestic tourism demand.

The robustness check, which examines whether the inclusion of control variables significantly alters the coefficients of the main variables, shows that the results remain stable (Table 5). This suggests that the model is robust, meaning that the main findings, such as the effects of hotel infrastructure and road quality on domestic tourism, are not overly sensitive to the inclusion of these control variables. This strengthens the credibility of the study's conclusions, indicating that the observed relationships are likely to be valid even after accounting for other factors.

Table 4: Results of Data Regression Panel Fixed Effect Model

VARIABLES	FE	FE1	FE2	FE3
ln_hotel	0.219*** (0.0704)	0.173*** (0.0662)	0.219*** (0.0704)	0.173*** (0.0662)
road	0.282* (0.157)	0.326** (0.139)	0.269* (0.157)	0.315** (0.140)
airport	0.182 (0.132)	0.112 (0.146)	0.177 (0.133)	0.108 (0.147)
harbor	0.0138 (0.0248)	-0.00336 (0.0220)	0.0156 (0.0249)	-0.00179 (0.0220)
ln_grdp		1.733*** (0.450)		1.727*** (0.449)
ln_density			0.0829** (0.0371)	0.0684** (0.0317)
Constant	11.93*** (0.254)	-5.730 (4.601)	11.49*** (0.315)	-6.032 (4.583)
Observations	2,056	2,056	2,056	2,056
Prob > F	0.000	0.000	0.000	0.000

VARIABLES	FE	FE1	FE2	FE3
Number of districts	514	514	514	514

Robust standard errors in parentheses; *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Sumber: Processed data output (STATA 18)

In table 5, the model can be interpreted either simultaneously or partially. The FE column (column 2) shows the model used without the control variable, the FE1, FE2 and FE3 columns are given a gradual control for *robustness check*. In general, the three models that were run both without control and with control showed that the model was simultaneously significant, which means that all six variables simultaneously affected the number of domestic tourist visits in Indonesia. Partially, the significance of the influence of each variable is determined from the *p-value* where through table 5 can be seen from the star symbol (*) with the caption below the table.

The consistently positive and highly significant coefficient of the **hotel** variable at the 1% level across all regression models (FE, FE1, FE2, and FE3) underscores the strong influence of accommodation availability on domestic tourism demand. This finding confirms

that the presence and development of hotel infrastructure play a crucial role in attracting domestic tourists, as it directly impacts both the comfort and convenience of travel. In line with tourism theory by Cooper et al., (1998) and Fletcher et al., (2018), amenities such as hotels are key components of the tourism system—serving not only as places to stay but also as indicators of a destination's readiness to host visitors. The quality, variety, and accessibility of accommodations can significantly shape tourists' perceptions and decisions, especially for multi-day travel that requires overnight stays.

Moreover, this finding stands in contrast to previous studies, such as (Dwi Setiawati and Firdaus, 2023), which found accommodation to be insignificant in influencing domestic tourism. One possible explanation for this discrepancy is the issue of regional aggregation bias. When data are aggregated at a higher level (e.g., province), local variations in hotel

availability and quality may be obscured, masking their true impact. In contrast, using more granular data at the regency level, as in this study, allows for a clearer capture of the relationship between hotel infrastructure and tourism flows. This suggests that accommodation does indeed matter—but its influence is best observed at a local scale where tourists interact with these services. Therefore, policies aimed at boosting domestic tourism should prioritize the expansion and improvement of hotel infrastructure, particularly in emerging destinations with growth potential, to stimulate more balanced and widespread tourism development.

The positive and statistically significant effect of the **road** variable (at the 10% level in FE1 and FE3, and at the 5% level in FE2 and FE) highlights the crucial role that road infrastructure plays in facilitating domestic tourism in Indonesia. Roads remain the backbone of interregional travel, especially within the same island, where most domestic tourist movement occurs. Improved road quality and availability not only

reduce travel time and costs but also enhance the overall accessibility and attractiveness of a wider range of destinations, including rural and nature-based sites that are typically unreachable by air or sea. This finding supports the notion that roads are not merely transportation channels but strategic assets that directly influence travel behavior and destination choice. It also reflects the practical preferences of domestic tourists, who often travel in groups, carry more goods, or make multiple stops—needs that are better accommodated by land travel. Thus, continued investment in road infrastructure, including maintenance and expansion, is essential for unlocking tourism potential and ensuring more equitable access to tourism opportunities across regions.

The insignificance of both **airport** and **harbor** variables across all models suggests that neither form of infrastructure has had a significant impact on domestic tourism. This aligns with the nature of domestic travel in Indonesia, which is predominantly interregional within the same island,

where land-based transportation is more accessible, affordable, and widely preferred by travelers. Most domestic tourists choose to travel by road due to its convenience and flexibility, especially for short to medium distances. Additionally, many airports and harbor particularly in remote or less-developed areas—suffer from limited connectivity, low service frequency, and poor integration with local tourism infrastructure. Their presence alone does not guarantee increased tourist flows if they are not supported by adequate accommodations, local transport, or attractions. Therefore, improving domestic tourism requires a more integrated approach focused on enhancing land transportation networks and the overall readiness of destinations, rather than relying solely on air or sea transport infrastructure.

The control variable of per capita income (**GRDP**) shows a positive and highly significant coefficient at the 1% level, indicating that regions with higher income levels tend to attract more domestic tourists. This supports

the idea that higher income is often associated with better infrastructure, services, and human resource quality, all of which enhance a destination's overall appeal. Wealthier regions are typically more developed, cleaner, safer, and better equipped to meet the expectations of tourists, which naturally draws more visitors. In other words, income is not just a reflection of economic status but also of the region's capacity to support tourism activities.

Meanwhile, population density also shows a positive and significant effect at the 5% level. This suggests that areas with a higher concentration of people tend to see more domestic tourism activity, likely due to the agglomeration effect. Densely populated areas often have better-developed facilities, more entertainment and hospitality services, and easier access to information, making them both more attractive and more convenient for tourists. In addition, these areas often serve as regional hubs or urban centers, making them natural destinations for domestic travel either for leisure, events, or short-term visits. Together, both

GRDP and population density highlight how broader socioeconomic conditions contribute to shaping domestic tourism patterns across regions.

CONCLUSION

This study concludes that the main factors affecting domestic tourism demand in Indonesia are the availability of hotel infrastructure, road quality, and GDP per capita. The findings indicate that the more hotels available in a region, the higher the number of domestic tourists visiting. This underscores the importance of adequate accommodation facilities in attracting domestic tourist arrivals. Additionally, the quality of road infrastructure plays a significant role, where better road accessibility encourages more domestic tourist trips. On the contrary, the study shows that airport and seaport infrastructure do not significantly affect the number of domestic tourist trips, indicating that most domestic travel is conducted via land.

In addition to infrastructure factors, GDP per capita has a strong influence on attracting domestic tourist

trips. In other words, the higher the purchasing power of people, the more likely they are to go on a tourist trip. Furthermore, population density was found to have a positive effect on the number of tourist trips, suggesting that areas with higher population concentrations tend to offer more facilities and better access to tourism information, which ultimately attracts domestic tourists.

Based on these findings, several strategic steps can be taken by the government, tourism practitioners, and other stakeholders to improve domestic tourism. For tourism industry players, such as hotel managers and travel agents, developing a range of accommodations to suit different tourist segments is crucial. Affordable hotels will certainly attract tourists from lower-income groups. Additionally, the government can offer incentives to the hotel sector, such as simplifying licensing processes and providing tax exemptions, to encourage the expansion of accommodation options for domestic tourists. Moreover, since domestic tourists predominantly use land

transportation, promoting land-based tour packages, such as bus or train trips, can be optimized.

In the transportation sector, the government, especially the Ministry of Public Works, should collaborate with the Ministry of Transportation and the private sector to improve road quality and develop more affordable and efficient land transportation options for tourists. The integration of inter-regional transportation systems could also be a solution to enhance tourist mobility and accelerate the development of the domestic tourism sector.

Overall, the results of this study confirm that strengthening road infrastructure, increasing investment in the hotel sector, and implementing economic policies that support purchasing power are the main steps to increase domestic tourism demand and drive economic growth.

This research has certain limitations, such as not considering spatial effects between regions and only focusing on the supply side of tourism. Future research could address these issues and consider the demand side of

tourism. Additionally, due to limited data availability, the study covers only the years 2020-2023, which means it cannot compare pre- and post-COVID-19 trends.

REFERENCE

- Alvarez-Diaz, M. *et al.* (2020) 'Analysing domestic tourism flows at the provincial level in Spain by using spatial gravity models', *International Journal of Tourism Research*, 22(4), pp. 403–415. Available at: <https://doi.org/10.1002/jtr.2344>.
- Badan Pusat Statistik (2024) *Statistik Wisatawan Nusantara 2023*. Badan Pusat Statistik.
- Baltagi, B.H. (2013) *Econometric Analysis of Panel Data*. 5th ed. West Sussex: Wiley.
- Bao, J. and Xie, H.J. (2019) 'Determinants of Domestic Tourism Demand for Guilin', *Journal of China Tourism Research*, 15(1), pp. 1–14. Available at: <https://doi.org/10.1080/19388160.2018.1515139>.
- Budirahmayani, A. and Khoirunurrofik (2019) 'Tourism and Economic Growth: Spatial Perspective', *Advance in Social Science, Education and Humanities Research (ASSEHR)*, 216, pp. 7–24. Available at: <https://doi.org/https://doi.org/10.2991/assdg-18.2019.2>.
- Cooper, C. *et al.* (1998) *Tourism: principles and practice*. 2nd ed. Longman.
- Dwi Setiawati, I. and Firdaus, M. (2023) 'Role and Determinants of Domestic Tourism Demand in Indonesia', *Economics Development Analysis Journal Inda Dwi*

- Setiawati *et al*, 12(3). Available at: <http://journal.unnes.ac.id/sju/index.php/edaj>.
- Fletcher, J. *et al*. (2018) *Tourism: Principles and Practice*. 6th ed. Harlow, United Kingdom: Pearson. Available at: www.pearson.com/uk.
- Giap, T.K., Gopalan, S. and Ye, Y. (2016) 'Drivers of growth in the travel and tourism industry in malaysia: A geweke causality analysis', *Economies*, 4(1). Available at: <https://doi.org/10.3390/economies4010003>.
- Hanif Othman, M. *et al*. (2018) 'MALAYSIA'S TOURISM DEMAND: A GRAVITY MODEL APPROACH (PERMINTAAN PELANCONGAN DI MALAYSIA: PENDEKATAN MODEL GRAVITI)', *Journal of Business and Social Development*, 6(1), pp. 39–50.
- Kementerian Pariwisata Indonesia (2025) 5 *Destinasi Super Prioritas*, <https://info5dsp.kemenparekraf.go.id/> (Accessed: 1 March 2025).
- Khadaroo, J. and Seetanah, B. (2008) 'The role of transport infrastructure in international tourism development: A gravity model approach', *Tourism Management*, 29(5), pp. 831–840. Available at: <https://doi.org/10.1016/j.tourman.2007.09.005>.
- Mankiw, N.G. (2015) *Principles of Economics*. 7e ed.
- Massidda, C. and Etzo, I. (2012) 'The determinants of Italian domestic tourism: A panel data analysis', *Tourism Management*, 33(3), pp. 603–610. Available at: <https://doi.org/10.1016/j.tourman.2011.06.017>.
- Muryani, Permatasari, M.F. and Esquivias, M.A. (2020) 'Determinants of tourism demand in Indonesia: A panel data analysis', *Tourism Analysis*, 25(1), pp. 77–89. Available at: <https://doi.org/10.3727/108354220X15758301241666>.
- Naudé, W.A. and Saayman, A. (2005) 'Determinants of tourist arrivals in Africa: A panel data regression analysis', *Tourism Economics*, 11(3), pp. 365–391. Available at: <https://doi.org/10.5367/000000005774352962>.
- Nguyen, Q.H. (2021) 'Impact of investment in tourism infrastructure development on attracting international visitors: A nonlinear panel ARDL approach using Vietnam's data', *Economies*, 9(3). Available at: <https://doi.org/10.3390/economies9030131>.
- Nu Minh, P.L.E. (2024) 'IS VIETNAM'S TOURISM DEMAND MODEL COMPATIBLE WITH THE EXTENDED GRAVITY MODEL?', *Geojournal of Tourism and Geosites*, 54, pp. 784–793. Available at: <https://doi.org/10.30892/gtg.542spl02-1253>.
- Ouerfelli, C. (2008) 'Co-integration analysis of quarterly European tourism demand in Tunisia', *Tourism Management*, 29(1), pp. 127–137. Available at: <https://doi.org/10.1016/j.tourman.2007.03.022>.
- Riyanto *et al*. (2020) *THE IMPACT OF TOURISM ON POVERTY ALLEVIATION AND INCOME DISTRIBUTION: EVIDENCE FROM INDONESIA*. 47. Jakarta.
- Roy, H. (2010) 'The Role of Tourism to Poverty Alleviation', *SSRN Electronic Journal* [Preprint]. Available at: <https://doi.org/10.2139/ssrn.1599971>.

Suparman *et al.* (2024) 'Unveiling Indonesia's poverty dynamics: Analyzing the structural impact of the tourism sector on poverty depth and severity', *Journal of Infrastructure, Policy and Development*, 8(5).

Available at:

<https://doi.org/10.24294/jipd.v8i5.3799>.

Tantowi, A. (2022) 'Determinants of Domestic Tourism Demand in Indonesia', *Jurnal Ilmu Ekonomi Terapan*, 7(2), pp. 185–196. Available at:

<https://doi.org/10.20473/jiet.v7i2.38817>.

United Nation (2010) *International recommendations for tourism statistics 2008*. New York: United Nations.

Wooldridge, J.M. *et al.* (2016) *Introductory econometrics*. Available at:

www.cengage.com/highered.

World Travel & Tourism Council (2024) *Travel & Tourism Economic Impact 2024*.

Available at:

https://researchhub.wttc.org/product/world-economic-impact-report?_gl=1*1tu7vtz*_ga*ODc0Mzc0NzQ5LjE3MzkxNjc5NjE.*_ga_JM5GLX6V1W*MTczOTE2Nzk2Mi4xLjAuMTczOTE2OTU2Mi4wLjAuMA..*_gcl_au*MzE1NTA4NjA4LjE3MzkxNjc4NzM. (Accessed: 10 February 2025).