

Research Article

The Impact of the Tourism Sector, Transportation Infrastructure, Number of Workers, and Hotel Occupancy Rates on the Regional Economy in Yogyakarta Province

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Abstract: This study analyzes the economic dynamics and development of the tourism sector in the Special Region of Yogyakarta (DIY) Province during the 2015–2024 period. The research employs a quantitative descriptive approach using secondary data obtained from the Central Bureau of Statistics (BPS). Data analysis is carried out through descriptive statistical methods and trend analysis to capture changes and patterns over time. The variables examined include regional economic growth, the number of tourist visits, road infrastructure development, labor absorption, and hotel occupancy rates across five districts/cities in the province. The findings indicate that the economy of DIY demonstrates relatively strong resilience in the post-COVID-19 pandemic period, supported by gradual recovery in tourism-related activities. The development and operation of Yogyakarta International Airport have significantly contributed to economic growth in Kulon Progo Regency, particularly by improving accessibility and investment opportunities. The tourism sector continues to serve as the main economic driver in the region, with tourist visits largely concentrated in Sleman Regency and Yogyakarta City, while Gunungkidul Regency shows considerable potential for nature-based tourism development. Overall, the study concludes that equitable infrastructure development and the strengthening of the service sector are crucial to ensuring sustainable and inclusive economic growth in the Special Region of Yogyakarta.

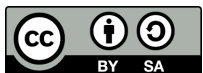
Keywords: Descriptive Analysis; DIY; Economic Growth; Infrastructure; Tourism.

1. Introduction

Regional economic development constitutes a primary instrument for improving public welfare and promoting sustainable national economic growth (Jhingan, 2004). The success of regional development is measured through Gross Regional Domestic Product (GRDP) and economic growth rates as indicators of production capacity and regional competitiveness (Todaro & Smith, 2015). In the context of regional autonomy, the effectiveness of managing local potential becomes a key determinant of regional development success (Arsyad, 2010). The Special Region of Yogyakarta (DIY) is widely recognized as a center of tourism, culture, and education, positioning the service sector particularly tourism as a major contributor to regional GRDP (BPS DIY, 2023). Tourism has been proven to generate multiplier effects on other sectors such as transportation, trade, and accommodation (Archer & Fletcher, 1996; UNWTO, 2019). Nevertheless, economic growth in DIY still exhibits interregional disparities, with Yogyakarta City and Sleman Regency dominating GRDP, while Gunungkidul and Kulon Progo remain relatively underdeveloped (BPS DIY, 2023).

Tourism development is influenced by the quality of infrastructure and transportation accessibility (Fadhil & Zaenuri, 2021; Sosiawan & Surbakti, 2024). The presence of Yogyakarta International Airport (YIA) and the integration of public transportation systems such as Trans Jogja play an important role in enhancing tourist mobility and strengthening destination competitiveness (MAPID, 2024). In addition, the availability of tourism labor is a

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crucial factor in maintaining service quality and sectoral sustainability (Fitri, 2023; Ministry of Tourism and Creative Economy, 2024). A strategic indicator reflecting the performance of the tourism sector is the Hotel Room Occupancy Rate (ROR), which represents the intensity of tourist demand for accommodation services (BPS, 2024). ROR functions as a transmission mechanism linking the tourism sector, transportation infrastructure, and labor to regional GRDP through increased economic activity and investment (Archer & Fletcher, 1996; UNWTO, 2019). However, empirical studies examining the interrelationships among the tourism sector, transportation infrastructure, and labor on the economy of DIY by incorporating hotel ROR as an intervening variable remain limited. Therefore, this study is important to analyze the role of hotel ROR in mediating the effects of the tourism sector, transportation infrastructure, and labor on the economic growth of the Special Region of Yogyakarta in a comprehensive and integrated manner.

Regional economic development is widely understood as a central pathway for enhancing public welfare and strengthening the foundations of sustainable national growth, where tourism frequently emerges as a strategic driver of regional transformation (Aliansyah & Hermawan, 2021). Empirical studies show that tourism activity contributes not only to aggregate output but also shapes income distribution and spatial economic dynamics, as evidenced in the Special Region of Yogyakarta where tourism growth coexists with persistent regional inequality (Adhitya et al., 2020). Research by Anggarini et al. (2021) demonstrates that tourism expansion can accelerate regional economic growth, yet its benefits often concentrate in areas with stronger initial advantages. These patterns underline that tourism-led development must be examined in relation to broader structural conditions that influence how economic gains are distributed across regions.

The Special Region of Yogyakarta represents a compelling case, as its economy is strongly anchored in tourism while exhibiting clear interregional disparities between urban centers and peripheral districts. Studies on local tourism economies indicate that increases in tourist arrivals are closely associated with rising community income and local economic circulation, particularly in destinations with well-developed attractions and services (Amalia & Nuirndah Sari, n.d.). At the same time, evidence from Yogyakarta suggests that regions with limited infrastructure and accessibility experience slower economic spillovers from tourism activity (Adhitya et al., 2020). This uneven pattern highlights the importance of complementary factors beyond tourist numbers in shaping regional economic outcomes.

Infrastructure readiness and destination support systems are consistently identified as decisive elements in determining the effectiveness of tourism development. Dalimunthe et al. (2020) emphasize that transportation infrastructure and supporting facilities form the backbone of sustainable tourism destinations by ensuring accessibility, safety, and service reliability. In regions where infrastructure investment is aligned with tourism potential, economic impacts tend to be stronger and more resilient, reinforcing local value chains and employment opportunities (Anggarini et al., 2021). Conversely, insufficient infrastructure constrains the capacity of tourism to act as a catalyst for inclusive regional growth.

Labor absorption and the performance of the accommodation sector further shape the relationship between tourism and regional economic performance. Empirical findings indicate that increases in tourist visits and hotel occupancy rates are positively associated with local revenue generation and employment creation, as shown in studies from Bukittinggi and Batu City (Aninda & Adriansyah, 2022; Asmynendar et al., 2021). Hotel occupancy rates reflect not only tourist demand but also the intensity of economic activity circulating through the hospitality and service sectors, linking tourism flows to broader regional income dynamics (Asmynendar et al., 2021). These relationships suggest that accommodation performance operates as an important channel through which tourism activity is translated into measurable economic outcomes.

Recent research also highlights the evolving orientation of tourism development toward sustainability and diversification, including ecotourism and community-based models. Al Akbar et al. (2023) show that digital marketing and sustainable tourism strategies can enhance destination competitiveness while broadening economic participation at the local level. Visitor perceptions of destination attractiveness, as discussed by Damayanti (2023), further influence repeat visits and length of stay, reinforcing the role of service quality in sustaining tourism-driven growth. Within this framework, analyzing the interaction between

the tourism sector, transportation infrastructure, labor, and hotel occupancy rates becomes essential for understanding how tourism contributes to regional economic performance in Yogyakarta Province in a comprehensive and integrated manner.

2. Literature Review

Grand Theory

This study is grounded in Economic Growth Theory, which explains long-term increases in output and welfare through the role of leading sectors, infrastructure as public capital, and labor as a factor of production (Dornbusch et al., 2006; Mankiw, 2010; Todaro & Smith, 2015).

Regional Economy in the Special Region of Yogyakarta

The regional economy refers to economic activities within an administrative area, measured by Gross Regional Domestic Product (GRDP) as the primary indicator of welfare and economic growth (Tarigan, 2005; Kuncoro, 2021; BPS, 2023). The tourism sector plays a strategic role in increasing GRDP and labor absorption in the Special Region of Yogyakarta (Fitri & Santoso, 2023; Priyanto & Handayani, 2022).

Tourism Sector and Its Contribution to the Economy

Tourism contributes to the regional economy through increased income, job creation, and value added to GRDP (Syahiddin et al., 2024; BPS, 2024). In the Special Region of Yogyakarta, tourism serves as a leading sector supported by destination development and promotion, thereby driving local economic growth (Nasution et al., 2022; Ratman in Ghani, 2017).

Transportation Infrastructure in the Special Region of Yogyakarta

Transportation infrastructure plays a crucial role in improving accessibility and regional connectivity, thereby supporting economic and tourism activities (Suparmoko, 2018; Suryani & Bustamam, 2021). The presence of Yogyakarta International Airport and intercity transportation networks strengthens tourist flows, with infrastructure quality measured through accessibility, connectivity, and travel time efficiency (Litman, 2017; World Bank, 2019).

Labor Force in the Special Region of Yogyakarta

The labor force comprises the working-age population (15–64 years) capable of producing goods and services (Law No. 13 of 2003; Pujoalwanto, 2014). Labor plays a significant role because tourism is labor-intensive and has the capacity to increase employment absorption and regional economic growth (Dewinta, 2010; BPS, 2023).

Hotel Occupancy Rate in the Special Region of Yogyakarta

The hotel occupancy rate is the percentage of rooms sold relative to the total available rooms, reflecting hotel operational performance (Damaryanti, 2006; Permana, 2013). The higher the occupancy rate, the greater the hotel revenue; therefore, this indicator is important for assessing the development of the hospitality and regional tourism sector (Wahyudo, 2019; Mahyudin & Suradi, 2018).

Research Paradigm

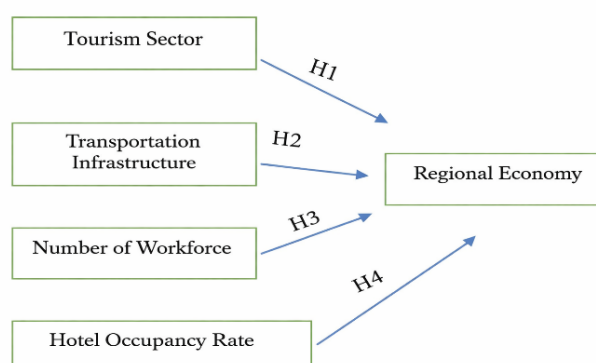


Figure 1. Research Paradigm.

3. Research Method

Type of Research

This study employs a descriptive quantitative approach to describe and analyze economic and tourism phenomena without conducting broad generalizations (Sugiyono, 2018).

Research Location and Period

The research was conducted in the Special Region of Yogyakarta using official data published by the Central Statistics Agency (BPS) for the period 2015–2024.

Population and Sample

The research population comprises tourist visitation data for the period 2015–2024, with the sample consisting of five regencies/municipality in the Special Region of Yogyakarta, namely Sleman, Bantul, Gunungkidul, Kulon Progo, and the City of Yogyakarta.

Research Variables

The research variables include GRDP as an indicator of the regional economy, the number of tourist visits as a representation of the tourism sector, the length of roads in good condition as an indicator of transportation infrastructure, total population as an indicator of labor, and the hotel occupancy rate as an indicator of hotel performance (BPS, 2024).

Type and Source of Data

The data used are secondary quantitative panel data (time series 2015–2024 and cross-section of five regencies/municipality) sourced from the BPS of the Special Region of Yogyakarta and relevant institutions (BPS, 2024).

Data Analysis Technique

Data analysis was conducted using descriptive statistics to present data characteristics through mean, maximum, minimum, and standard deviation values (Sugiyono, 2022), as well as trend analysis to observe variable developments over time. The results of the analysis are presented in the form of tables and figures.

4. Results and Discussion

Descriptive Statistics

Table 1. Descriptive Statistics Results.

Variables	Unit	Mean	Maximum	Minimum	Std. Deviation
Tourism Sector	Souls	4.850.210	13.899.888	337.514	3.120.450
Transportation Infrastructure	Km	485,30	825,44	182,15	165,40
Number of Workers	Souls	285.450	598.221	12.297	145.200
Hotel Occupancy Rates	%	48,60	70,12	18,30	12,45
Regional Economy	%	5,12	13,13	-4,17	3,25

Source: Primary Data, processed in 2025.

Based on the descriptive statistics table, the data shows significant variation, as follows:

Regional Economy

The average economic growth in the five districts/cities of DIY is 5.12%. The highest value reached 13.13% (Yogyakarta City, 2020) and the lowest value reached -4.17% (Kulon Progo, 2020), indicating sharp fluctuations due to the pandemic.

Tourism Sector

This variable has a standard deviation of 3,120,450. This indicates a striking disparity in the number of tourist visits between regions, with Sleman Regency and Yogyakarta City having figures far above the average compared to other regencies.

Transportation Infrastructure

The infrastructure variable is measured by the length of roads in good condition, showing an average value of 485.30 km. The highest value of 825.44 km is in Sleman Regency, reflecting the extensive accessibility in that region. Conversely, the lowest value of 182.15 km is in Yogyakarta City. Although the minimum value is low, this does not indicate poor road quality, but rather is due to the fact that Yogyakarta City has the smallest administrative area compared to other regencies in DIY.

Number of Workers

The average number of employed residents in each district/city is 285,450. The highest number is 598,221 and the lowest is 12,297. This shows that there is a higher concentration of labor absorption in economic and tourism centers, such as Sleman and Bantul, compared to areas with lower population densities.

Hotel Occupancy Rate

The average hotel room occupancy rate was 48.60%, but it once reached a low of 18.30%, reflecting the sluggishness of the accommodation sector during the period of social restrictions.

Analysis and Development of Variables**Economic Analysis****Table 2.** GRDP Growth Rate.

Year	Bantul	Kulon Progo	Gunung Kidul	Sleman	Yogyakarta City
2015	4,98	4,95	4,9	5,04	5,12
2016	3,77	3,63	3,83	4,06	3,84
2017	3,86	4,81	4,01	4,18	3,99
2018	4,27	9,67	4,18	5,25	4,31
2019	3,87	11,38	3,51	4,36	4,55
2020	2,2	-4,17	-0,19	4,98	13,13
2021	4,19	3,68	4,93	4,79	4,72
2022	4,26	5,97	5,17	4,07	5,05
2023	4,16	5,09	4,85	4,05	5,03
2024	4,19	4,23	4,64	4,18	5,03

Source: Primary Data, processed in 2025

Based on the growth rate of GRDP per capita for the 2015–2024 period, the economies of the five districts/cities in the Province of DI Yogyakarta show a clear pattern of fluctuation. The 2015–2017 period was relatively stable, followed by a significant surge in Kulon Progo District in 2019 due to the construction of Yogyakarta International Airport (YIA). In 2020, all regions experienced a contraction due to the COVID-19 pandemic, especially Kulon Progo. In the 2021–2024 period, growth returned to positive territory at around 4%, reflecting economic recovery due to tourism activities and transportation support.

Tourism Sector Analysis**Table 3.** Number of Tourist Visits.

Year	Bantul	Kulon Progo	Gunung Kidul	Sleman	Yogyakarta City
2015	2.528.593	337.514	2.639.361	5.004.895	3.125.695
2016	3.471.762	592.468	3.690.323	6.076.332	5.471.041
2017	3.678.255	1.251.790	3.767.233	7.656.510	5.289.178
2018	3.954.614	1.613.775	3.447.427	9.306.711	5.495.414
2019	3.617.423	1.975.309	3.527.543	1.002.189	4.175.367
2020	3.475.028	2.489.807	4.139.024	5.691.851	3.795.772
2021	4.113.488	3.222.621	5.305.831	6.637.878	3.554.182
2022	3.921.346	2.145.409	4.696.212	7.900.114	7.080.509
2023	4.163.492	1.926.665	4.691.785	9.432.824	10.222.303
2024	6.617.696	2.229.787	5.191.194	13.899.888	10.092.174

Source: Primary Data, processed in 2025

Based on tourist visit data for the 2015–2024 period, tourism in the Province of DI Yogyakarta shows a fluctuating trend, with Sleman Regency and Yogyakarta City dominating as the main destinations. Until 2019, the number of visits increased consistently, then was affected by the COVID-19 pandemic in 2020, with different patterns between regions, where Kulon Progo continued to record an increase in line with the operation of Yogyakarta International Airport (YIA). During the recovery period from 2021 to 2024, there was a

significant surge in visits, particularly in 2024, reflecting the recovery of tourism activities and the strengthening of tourism's role as the main driver of the regional economy.

Transportation Infrastructure Analysis

Table 4. Length of Roads in Good Condition.

Year	Bantul	Kulon Progo	Gunung Kidul	Sleman	Yogyakarta City
2015	485,1	445,2	680,4	540,1	182,1
2016	498,4	458,3	695,1	555,2	188,4
2017	510,3	480,1	720,4	580,1	195,2
2018	525,1	492,1	745,3	602,4	202,1
2019	540,2	505,4	768,1	625,3	210,4
2020	548,2	512,1	775,3	632,4	215,1
2021	555,1	518,4	782,1	640,1	218,4
2022	565,4	525,3	795,4	652,3	222,1
2023	572,3	535,1	810,1	665,4	225,3
2024	580,1	542,8	825,4	678,2	228,1

Source: Primary data, processed in 2025

Based on data from the 2015–2024 period, the length of roads in good condition in all districts/cities in the Province of DI Yogyakarta shows a stable and consistent increase, including during the 2020 pandemic. Gunung Kidul Regency recorded the most significant increase, followed by Bantul and Sleman, while Yogyakarta City also experienced a positive trend despite being the smallest in area. This indicates that road infrastructure development remains a priority as a pillar of regional connectivity, economic distribution, and tourism access in DI Yogyakarta.

Labor Force Analysis

Table 5. Number of Working Population.

Year	Bantul	Kulon Progo	Gunung Kidul	Sleman	Yogyakarta City
2015	148.101	46495	50.887	151.271	88.639
2016	488.556	230.112	448.334	598.221	212.445
2017	149.261	48.001	79.239	185.349	92.786
2018	51.793	17.557	26.852	77.697	37.476
2019	49.933	12.297	21.072	73.682	47.443
2020	47.003	13.399	16.517	62.425	32.926
2021	137.145	47.312	70.871	203.948	88.088
2022	381.835	102.506	139.208	448.150	205.332
2023	367.842	108.369	181.401	425.375	176.094
2024	348.074	113.797	169.525	429.853	168.710

Source: Primary Data, processed in 2025

Based on data from the 2015–2024 period, the number of employed people in the Province of DI Yogyakarta shows the dominance of Sleman Regency as the main center of labor absorption. In 2020, there was a significant decline due to the COVID-19 pandemic, particularly in the service and tourism sectors. However, from 2021 to 2024, employment conditions returned to stability, indicating a recovery in economic activity and increased labor absorption across all regencies/cities in DIY.

Hotel Occupancy Rate Analysis

Table 6. Room Occupancy Rates.

Year	Bantul	Kulon Progo	Gunung Kidul	Sleman	Yogyakarta City
2015	45,2	41,36	32,1	52,4	56,8
2016	48,1	45,2	35,4	55,1	59,2
2017	50,4	48,1	38,1	58,3	62,1
2018	52,1	50,2	40,0	60,1	65,4

2019	55,3	52,4	42,1	63,4	68,1
2020	25,4	22,1	18,3	28,1	30,4
2021	30,1	28,4	22,4	35,5	38,1
2022	48,1	45,3	39,1	58,4	62,1
2023	53,4	49,1	42,1	62,1	67,4
2024	55,1	51,2	44,1	65,3	70,1

Source: Primary data, processed in 2025

Hotel room occupancy rate (TPK) data for the province of DI Yogyakarta for the period 2015–2024 shows that the city of Yogyakarta and Sleman Regency dominate as the areas with the highest occupancy rates. In 2020, the TPK dropped dramatically due to the COVID-19 pandemic, reflecting the halt in tourism activities. However, in the 2021–2024 period, there was a significant recovery that exceeded pre-pandemic conditions, indicating the recovery of the hospitality sector in line with increased tourist mobility and MICE activities.

Analysis of Regional Economic Dynamics

The dynamics of economic growth in the Province of DI Yogyakarta for the period 2015–2024 show stability in the range of 5%, with a significant surge in Kulon Progo Regency in 2018–2019 due to the construction of Yogyakarta International Airport (YIA). In 2020, there was an economic contraction in almost all regions due to the COVID-19 pandemic, reflecting vulnerability to external shocks. However, the 2021–2024 period shows a synchronous and stable recovery, indicating the strong resilience of the regional economy, with economic activity still dominated by Sleman and Yogyakarta City.

The pattern of regional economic growth in the Province of the Special Region of Yogyakarta during 2015–2024 reflects a relatively stable trajectory at around 5 percent, a level that aligns with classical macroeconomic expectations regarding steady growth in service-oriented regional economies as discussed by Dornbusch (2006) and Mudrajat Kuncoro (2021). A notable deviation from this pattern occurred in Kulon Progo Regency during 2018–2019, when economic growth accelerated significantly following the construction and initial operation of Yogyakarta International Airport, reinforcing the argument of Kurniawan and Aminata (2023) that transportation infrastructure investment can function as a direct stimulus to regional economic expansion. This surge illustrates how large-scale infrastructure projects reshape spatial economic structures by redirecting investment flows and production activities, a dynamic also emphasized in the analysis of supporting infrastructure readiness by Dalimunthe et al. (2020). Despite this progress, economic activity during the same period remained concentrated in Sleman Regency and Yogyakarta City, indicating that growth impulses were unevenly distributed across districts. Such concentration reflects structural disparities that continue to characterize the regional economy, even during phases of aggregate growth.

The year 2020 marked a pronounced contraction across almost all districts and municipalities in Yogyakarta Province as a result of the COVID-19 pandemic, revealing the vulnerability of tourism-dependent regional economies to external shocks, as highlighted in the recovery analysis by Fadhil and Zaenuri (2021). The sharp decline in economic performance during this period underscores the sensitivity of labor absorption in tourism-related industries, which Dewinta (2010) identifies as highly elastic in response to fluctuations in visitor demand. From a development perspective, this contraction confirms the theoretical linkage between investment, labor, and output, where sudden disruptions in demand translate rapidly into declining regional income, a relationship also observed by Gwijangge and Siwu (2018) in different regional settings. At the same time, variations in the depth of contraction among districts suggest that areas with stronger infrastructure and diversified economic bases were better positioned to absorb the shock. This condition reinforces the strategic role of infrastructure quality and regional economic structure in shaping resilience during periods of crisis.

The recovery phase from 2021 to 2024 demonstrates a synchronized and gradual rebound across the Province of DI Yogyakarta, signaling a relatively strong capacity for economic adjustment and adaptation. This recovery has been closely linked to the revitalization of tourism activities, improved destination management, and renewed visitor confidence, factors that Fitri (2023) associates with sustainable tourism mapping and strategic

destination development in Yogyakarta City. From a demand perspective, visitor perceptions of destination attractiveness, as discussed by Damayanti (2023), contributed to the revival of tourist flows, which in turn supported accommodation performance and local economic circulation. Marketing strategies and destination branding, rooted in the principles of service value and experience management described by Kottler and Lane Keller (2015), further reinforced the post-pandemic recovery of the tourism economy. Nevertheless, the persistence of Sleman Regency and Yogyakarta City as dominant economic centers during the recovery period indicates that long-term regional balance remains a key policy challenge within Yogyakarta Province.

Contribution of the Tourism Sector to the Region

The tourism sector in the Province of DI Yogyakarta plays a leading role in driving regional economic growth, with the highest concentration of visitors in Sleman Regency and Yogyakarta City. Before the pandemic, tourism was on an upward trend, while 2020 saw a sharp decline due to COVID-19, which had a widespread impact on related sectors. In the post-pandemic period (2022–2024), there was a significant recovery (revenge tourism) supported by government policies and the development of tourist villages, so that tourism once again became the main driver of the regional economy.

The tourism sector has consistently functioned as a leading engine of regional economic growth in the Province of the Special Region of Yogyakarta, with Sleman Regency and Yogyakarta City emerging as the primary nodes of visitor concentration and economic circulation, a spatial pattern that aligns with the regional growth framework proposed by Robinson Tarigan (2005). Prior to the COVID-19 pandemic, tourist arrivals exhibited a sustained upward trend, reflecting strong investment dynamics and the expansion of tourism-related services, conditions that Ramadhania (2018) identifies as central to employment creation and income growth in tourism-based regional economies. This concentration of tourism activity has reinforced agglomeration effects, where accessibility, attractions, and supporting services mutually strengthen economic performance. At the same time, the uneven spatial distribution of visitors indicates that tourism growth has not been uniformly translated into balanced regional development.

The sharp decline in tourism activity in 2020 marked a critical disruption, as mobility restrictions and health concerns caused a sudden contraction in visitor flows and weakened intersectoral linkages between tourism, transportation, and local services. Empirical insights from Palilu and Suripatty (2018) and Raharjo et al. (2023) demonstrate that tourism demand is highly sensitive to transportation accessibility, a vulnerability that became evident when mobility systems were temporarily constrained. The downturn not only reduced regional income but also exposed the dependence of local economies on visitor-based consumption, particularly in urban tourism centers. This phase underscored the structural risks faced by regions whose economic performance is closely tied to tourism intensity.

During the post-pandemic period from 2022 to 2024, tourism in Yogyakarta Province experienced a pronounced recovery often characterized as revenge tourism, supported by adaptive government policies, destination diversification, and the expansion of tourist villages. Regulatory and ethical dimensions of tourism development, as discussed by Nasution et al. (2022) and Nur Hayati (n.d.), contributed to strengthening visitor trust, service quality, and destination image, which are critical for sustaining demand. Infrastructure-oriented approaches to tourism development, highlighted by Salahudin Saiman (2022), further enhanced accessibility and visitor distribution across regions. As a result, tourism reasserted its role as a key driver of regional economic revitalization, although the challenge of ensuring more equitable spatial benefits remains a continuing concern.

The Role of Infrastructure and Employment

Road infrastructure development in DI Yogyakarta Province serves as the foundation for economic connectivity, reducing distribution costs and improving regional accessibility, especially to southern tourist areas. Road improvements encourage tourism growth and employment, particularly in the service sector. Although the 2020 pandemic put pressure on the job market, the post-2022 recovery shows that the synergy between infrastructure and employment creates a multiplier effect that strengthens regional economic growth more evenly.

The development of road infrastructure in the Province of the Special Region of Yogyakarta has become a fundamental pillar in strengthening regional economic connectivity, particularly by reducing distribution costs and improving access to southern tourism destinations that were previously relatively isolated, a function of public infrastructure emphasized by Suparmoko (2018). Improved road networks facilitate smoother mobility of goods, services, and tourists, creating favorable conditions for tourism expansion and reinforcing local economic linkages, as observed in studies on regional tourism development by Suryani and Bustamam (2021). These accessibility gains have enabled tourism activities to extend beyond urban cores, encouraging the emergence of new economic centers in peripheral areas. As a result, infrastructure investment has operated not only as a physical improvement but also as a catalyst for spatial economic integration.

Employment dynamics in Yogyakarta Province are closely intertwined with infrastructure-driven tourism growth, particularly within labor-intensive service sectors such as accommodation, transportation, and creative industries. Empirical evaluations by Syahiddin Muhamma et al. (2024) indicate that increases in tourism activity are consistently associated with higher labor absorption and improved regional economic performance, reinforcing the strategic role of employment in sustaining growth. Community-based tourism models, as discussed by Syarifuddin (n.d.), further demonstrate how improved accessibility empowers local communities to participate more actively in tourism value chains through small-scale enterprises and village tourism initiatives. These mechanisms collectively strengthen income distribution and enhance the social foundations of regional development.

The economic disruption caused by the COVID-19 pandemic in 2020 exerted significant pressure on the labor market, particularly in tourism-dependent areas, yet the post-2022 recovery reveals a gradual restoration of employment opportunities alongside renewed infrastructure utilization. The interaction between revitalized road networks and recovering tourism demand has generated multiplier effects, where rising visitor flows stimulate service sector employment and household income, reinforcing regional economic resilience, as conceptualized in public development theory by Suparmoko (2018). Evidence from tourism development studies also suggests that such synergies contribute to more balanced growth by linking infrastructure investment with labor empowerment strategies (Suryani & Bustamam, 2021). This pattern indicates that the long-term effectiveness of infrastructure development in Yogyakarta Province depends on its capacity to sustain employment growth and integrate local communities into the regional economy.

Accommodation Industry Conditions and Hotel Occupancy Rates

The hotel occupancy rate (TPK) in the Province of DI Yogyakarta reflects the intensity of tourist visits and the performance of the accommodation industry, with the city of Yogyakarta and Sleman Regency as the areas with the highest occupancy rates. The COVID-19 pandemic in 2020 caused a sharp decline due to the high fixed costs of the hotel sector, but the post-2022 period shows a recovery as tourism and MICE activities resume. The increase in TPK also has a direct impact on labor absorption, making the hospitality sector an important pillar of the regional tourism economy.

Hotel occupancy rates in the Province of the Special Region of Yogyakarta serve as a concrete indicator of tourism intensity and accommodation sector performance, with Yogyakarta City and Sleman Regency consistently recording the highest levels due to their concentration of attractions, business activities, and supporting services. From a public economics perspective, Suparmoko (2018) explains that sectors with high fixed costs, such as hospitality, are highly sensitive to demand fluctuations, which makes occupancy rates a critical signal of sectoral stability. Prior to the pandemic, rising occupancy reflected robust tourism demand and efficient utilization of accommodation capacity, reinforcing the role of hotels as key contributors to local economic circulation. This spatial dominance also illustrates how urban tourism hubs benefit more rapidly from visitor flows compared to peripheral areas.

The COVID-19 pandemic in 2020 triggered a sharp decline in hotel occupancy rates across Yogyakarta Province, exposing the structural vulnerability of the accommodation industry to sudden demand shocks. Suryani and Bustamam (2021) note that tourism-dependent service sectors experience amplified impacts during crises due to rigid operational costs and declining visitor mobility, conditions that were clearly reflected in the hospitality sector during this period. The contraction in occupancy not only reduced hotel revenues but

also constrained related economic activities, including food services, transportation, and local suppliers. This downturn confirmed the close interdependence between accommodation performance and broader regional economic resilience.

The recovery phase after 2022 demonstrates a gradual normalization of hotel occupancy rates in line with the revival of tourism, MICE activities, and domestic travel demand, signaling renewed confidence in Yogyakarta as a destination. Empirical findings by Syahiddin Muhamma et al. (2024) show that improvements in tourism performance are closely linked to labor absorption and regional economic output, positioning the hospitality sector as a strategic employment generator during recovery periods. At the local level, community-based tourism initiatives and village tourism development, as emphasized by Syarifuddin (n.d.), have complemented urban accommodation growth by diversifying visitor distribution and length of stay. This recovery trajectory highlights that rising hotel occupancy rates not only reflect tourism revival but also strengthen the accommodation industry's role as a central pillar of the regional tourism economy in Yogyakarta Province.

5. Conclusion

Based on the results of an analysis of economic and tourism dynamics in the Special Region of Yogyakarta Province for the period 2015–2024, it can be concluded that DIY's economic growth has shown good resilience despite experiencing a contraction due to the COVID-19 pandemic, with strategic infrastructure development such as Yogyakarta International Airport (YIA) playing a major role in driving growth, particularly in Kulon Progo Regency. The tourism sector remains the mainstay of the regional economy, with visits concentrated in Sleman and Yogyakarta City, while Gunungkidul Regency is beginning to develop as an alternative ecotourism destination. Improvements in road infrastructure have contributed to smoother tourist mobility and the recovery of employment in the service sector, while hotel occupancy rates reflect the success of tourism recovery through increased staycation and MICE activities in urban areas of DIY.

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