



# Mapping the Contribution of Tourism on East Java Economy: A Quadrant Analysis

Hapid Durohman<sup>1</sup>, Nanik Shofiatin<sup>2</sup>

<sup>1</sup>*Padjajaran University, Indonesia*

<sup>2</sup>*Brawijaya University, Indonesia*

This study aims to map and investigate the contribution of the tourism sector to economic development in 34 regencies/cities in East Java. As one of the main drivers of economic growth, this study examines the impact of tourism across the province. Utilizing data from 2019 and 2023 provided by the Central Bureau of Statistics, this research employs a descriptive quantitative approach and analyzes various macroeconomic indicators through linear correlation analysis with a four-quadrant scatter plot. These indicators include the total Gross Regional Domestic Product (GRDP) at current prices in the accommodation and food service sector, economic growth, Gini ratio, poverty rate, and unemployment rate. This analysis aims to achieve several objectives. First, to evaluate the impact of tourism on the overall economy of East Java. Second, to investigate the role of tourism in poverty and unemployment reduction. Lastly, the study focuses on developing integrated and sustainable tourism strategies to maximize the sector's contribution to the local economy. By assessing the performance of the tourism sector and identifying existing challenges and opportunities, this research is expected to provide a solid foundation for formulating effective and optimal tourism development strategies in East Java.

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\*Correspondence:

Hapid Durohman

[hapidurohman10302@gmail.com](mailto:hapidurohman10302@gmail.com)

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## INTRODUCTION

Economic growth is a key indicator in evaluating the success of a country's development. Indonesia, as a country with a developing economy, has shown significant progress. In the fourth quarter of 2023, Indonesia's economic growth was recorded at 5.04% (Year-on-Year) (Badan Pusat Statistik, 2023a). This achievement is the result of contributions from various leading sectors, including the tourism sector, which has a substantial impact on the national economy.

The tourism sector, particularly in East Java Province, plays a very important role in supporting economic growth. Data from the Central Bureau of Statistics (BPS) shows that in 2023, East Java received 207,813,619 domestic tourist visits. This figure makes it the province with the highest number of domestic tourist trips in Indonesia, contributing approximately 25.17% of total national domestic tourist trips. Over the last five years (2019-2023), East Java recorded a total of 780,024,547 domestic tourist trips, with the trend of tourist numbers increasing every year.

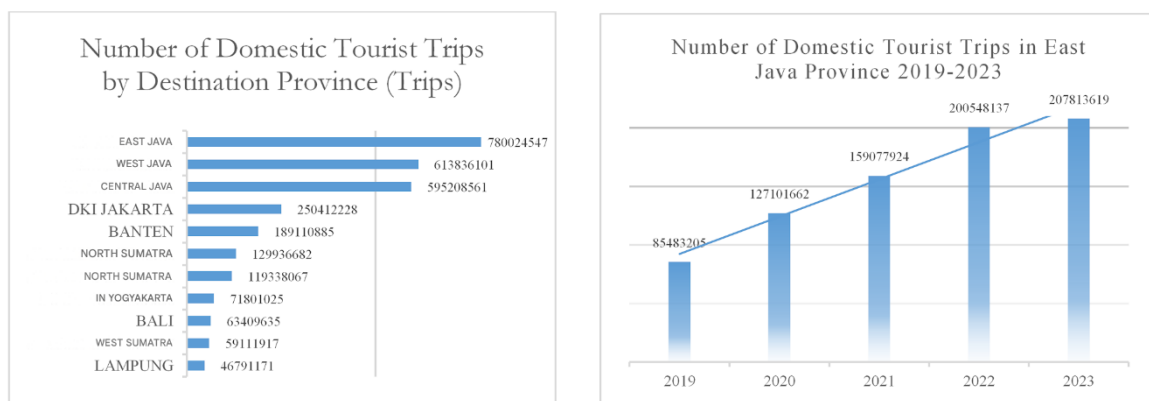


Figure 1. Number of Domestic Tourist Trips  
Source: BPS Indonesia

East Java's success in attracting a significant number of domestic tourists is inseparable from the various tourist attractions offered, such as nature, culture, and rich history. The average expenditure per

domestic tourist in East Java was recorded at Rp 2.43 million, bringing the total transactions generated from the domestic tourism sector in this province to more than Rp 487 trillion per year (Dinas Kominfo, 2023).

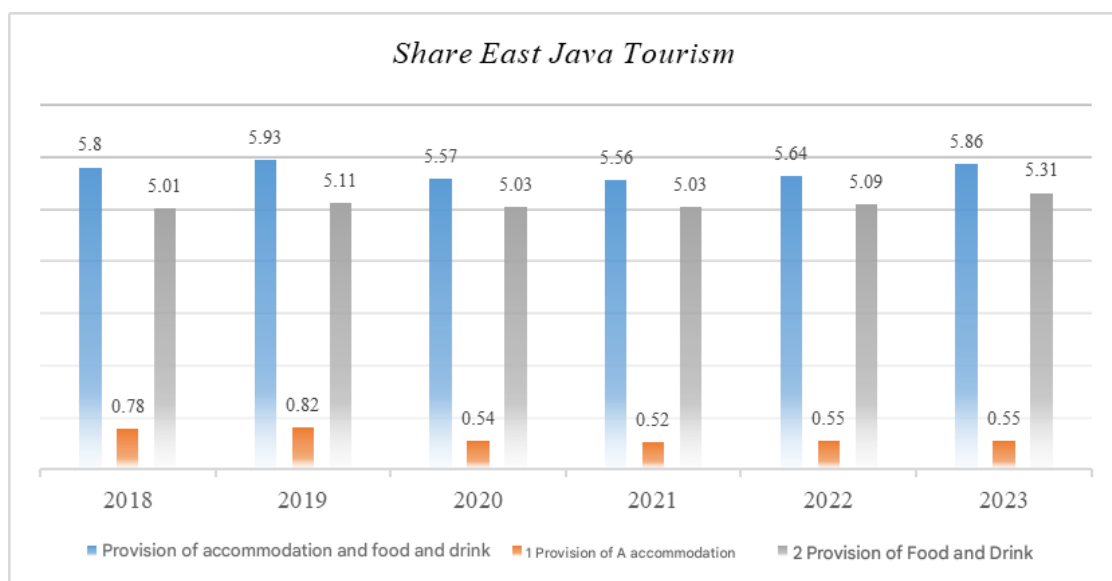


Figure 2. Development of East Java Tourism Sector Contribution: Accommodation and Food & Beverage (2018-2023)

Despite having great potential, the tourism sector in East Java faces a number of problems that hinder its optimal development. The main problems include inadequate infrastructure, ineffective promotion, and destination management that is not yet optimally coordinated (Mohammad Vavian Baharudinsyah & Yanda Bara Kusuma, 2023). Data shows that the contribution of the accommodation sub-sector decreased from 0.78 in 2018 to 0.52 in 2021, before rising to 0.55 in 2022 and 2023. This decline indicates that the accommodation sub-sector has not developed optimally.

Furthermore, there is a significant gap in tourism development between regencies and cities in East Java, with varying levels of efficiency and productivity (Suparno, 2020). Data fluctuations also show that not all regions can consistently maintain or improve their performance. Factors such as varying infrastructure, diverse destination management, uneven promotion, and differences in capacity and service quality also influence the performance of each region, indicating that many regions have not fully utilized their tourism potential.

In addition to challenges in the tourism sector, East Java also faces serious problems regarding poverty and unemployment. The poverty percentage in East Java, which reached 10.35%, is still above the national average of around 9.36% in the first semester of 2023 (Badan Pusat Statistik, t.t.-c). The number of poor people in this province exceeds 4 million people annually (Badan Pusat Statistik, t.t.-a). Additionally, although the Open Unemployment Rate (TPT) in East Java decreased from 5.74% in 2021 to 4.88% in 2023, there are still regencies and cities with high TPT. Malang City, Surabaya City, and Sidoarjo Regency recorded TPT of 6.80%, 6.76%, and 8.05% respectively (Badan Pusat Statistik, t.t.-d). This significant variation in TPT between regencies/cities reflects economic inequality and the inability of some regions to create adequate employment.

Furthermore, the Gini Index data in East Java, recorded at 0.387, supports the picture of significant income inequality (Badan Pusat Statistik, 2023b). The Gini Index is a general measure of income inequality, with values ranging from 0 to 1, where a higher value indicates a greater level of inequality. This figure confirms the existence of economic gaps that need to be addressed in East Java.

The tourism sector can act as a catalyst in overcoming various problems faced by East Java, including poverty and unemployment. As a strategic

sector, tourism has the potential to make a significant contribution to the local economy through job creation, infrastructure development, and increased regional income. In the economic framework, tourism activities in Indonesia are grouped under the 2020 Indonesian Standard Industrial Classification (KBLI) which includes 13 main subsectors. These thirteen subsectors include Accommodation for visitors; Food and beverage serving activities; Railway passenger transport; Road passenger transport; Water passenger transport; Air passenger transport; Transport equipment rental; Travel agencies and other reservation service activities; Cultural activities; Sports and Recreational activities; Retail trade of country-specific tourism characteristic goods; Other country-specific tourism characteristic activities; and Connected/Related Activities (Kemenparekraf, 2022). With the diversity of these subsectors, the tourism sector can not only absorb labor directly but also stimulate other supporting sectors. Therefore, integrated tourism sector development can be an effective strategy to overcome poverty and unemployment problems in East Java.

This study fills the research gap regarding the role of the tourism sector in the economy in East Java with different analysis methods and variables compared to previous research conducted by Al Faruqi et al. (2021); Eka Andri Kurniawan, (2018); and Subardini (2017). This study aims to evaluate the impact of the tourism sector on the East Java economy by analyzing various macroeconomic indicators, including the role of tourism in regional income and its contribution to poverty and unemployment reduction. Additionally, this research focuses on developing integrated and sustainable tourism strategies, utilizing various subsectors to increase the sector's contribution to the local economy. By assessing the performance of the tourism sector and identifying existing challenges and opportunities, the results of this study are expected to provide a solid foundation for formulating effective and optimal tourism development strategies.

## LITERATURE REVIEW

### Economic Development Theory

According to Todaro & Smith (2012), economic development is a multidimensional process as economic development is not just about increasing per capita income, but also involves improving the quality of life of the community. This includes aspects such as health, education, and social equality. Development must be seen as a multidimensional process aimed at improving overall living conditions. Furthermore, Todaro & Smith

(2012) identify three main objectives of economic development, namely: (i) promoting economic growth; (ii) equitable income distribution; and (iii) eradicating poverty.

The economic development theory according to [Todaro & Smith \(2012\)](#) provides a broad and deep view of the development process in developing countries. By emphasizing the multidimensional aspects of development, the importance of inclusive policies, and the role of strong institutions, Todaro offers a comprehensive framework for understanding and overcoming development challenges. Indicators such as GDP growth, Gini Index, HDI, and unemployment rates are important tools for measuring and evaluating economic development progress.

### Economic Sectors and Tourism Classification

According to [\(BPS East Java, 2024a\)](#), the capacity of economic resources generated by a region is reflected by the nominal GRDP value at current prices. The larger the GRDP value, the larger the economic resource capacity of the region, and vice versa. The distribution of GRDP at current prices by sector describes the economic structure or the contribution of each economic sector within a region. Economic sectors that have a large contribution indicate the economic base of the region.

The Central Bureau of Statistics (BPS) classifies business fields in Indonesia into 17 sectors, based on the type of economic activity carried out. This classification is used to compile national economic statistics, such as Gross Domestic Product (GDP) and unemployment rates. The 17 business sectors in Indonesia are: i. Agriculture, Forestry, and Fisheries; ii. Mining and Quarrying; iii. Manufacturing Industry; iv. Electricity, Gas, and Water Supply; v. Water Supply, Waste Management, Waste, and Recycling; vi. Construction; vii. Wholesale and Retail Trade; Car and Bicycle Repair; viii. Transportation and Warehousing; ix. Accommodation and Food & Beverage Provision; x. Information and Communication; xi. Financial and Insurance Services; xii. Real Estate; xiii. Corporate Services; xiv. Government Administration, Defense, and Compulsory Social Security; xv. Educational Services; xvi. Health Services and Social Activities; xvii. Other Services.

This classification of 17 business sectors is an important tool for understanding Indonesia's economic structure and tracking its development over time. Statistical data collected based on this classification is used by the government, business actors, and

researchers for various purposes, such as economic policy analysis, development planning, and economic research.

In the East Java Tourism Statistics publication, [BPS East Java \(2024b\)](#) explains several definition concepts related to tourism statistics discussed, covering accommodation provision businesses and hotel businesses. Based on the 2020 Indonesian Standard Industrial Classification (KBLI), the tourism sector in Indonesia consists of 13 main interrelated subsectors. KBLI 2020 is a system for grouping various types of businesses or economic activities in Indonesia. In the context of tourism, KBLI 2020 divides the tourism sector into 13 main subsectors: Accommodation; Culinary; Transportation; Travel agencies and reservation services; Cultural activities; Sports and recreational activities; Retail trade of specific tourism goods; etc.

### Previous Research

Several previous studies have extensively analyzed the contribution of the tourism sector to the economy of various regions. Research in Lampung Province utilized the Location Quotient (LQ) method to identify economic sectors with growth potential, emphasizing the importance of tourism in regional economic development [\(Yanto et al., 2024\)](#). Additionally, research in West Java has highlighted the positive impact of tourism on economic growth, emphasizing factors such as tourist arrivals, government spending on tourism, and the number of hotel rooms and restaurants as main contributors to economic development [\(Aliansyah & Hermawan, 2019\)](#). Other research also explores the relationship between tourism and poverty reduction, highlighting cointegration and causality between the two factors [\(Fadliyanti et al., 2019\)](#). This analysis emphasizes the importance of strategic planning and community involvement in utilizing tourism for economic development and poverty alleviation.

A study conducted by [Subardini \(2017\)](#) using time series data for 10 years with the Ordinary Least Square (OLS) analysis method shows that the tourism sector in East Java has a positive impact on Gross Regional Domestic Product (GRDP) through variables such as hotel investment and the number of foreign tourists, although the variable of tourist length of stay does not have a significant partial contribution. However, simultaneously, the tourism sector based on these three research variables has a positive and significant contribution to the GRDP of East Java

Province. Furthermore, the tourism sector also plays an important role in GDP formation and job creation in East Java, as evidenced by Input-Output analysis highlighting the inter-sectoral linkages of the tourism industry with other sectors (Kurniawan, 2018).

The tourism development strategy for East Java according to Al Faruqi et al. (2021) focuses on improving socio-economic conditions, improving tourism infrastructure, and promoting cultural resources. Another study used SWOT analysis and Quantitative Strategic Planning Matrix (QSP) to analyze tourism destination development in Jember Regency, focusing on strategies such as fostering community groups, increasing product competitiveness through self-financing programs, and integrating activities in the tourism sector with other sectors (Buditiawan & Harmono, 2020). Despite its potential, challenges such as local government regulations and disparities in tourist numbers between destinations persist, requiring integrated management and infrastructure development for sustainable growth (Satria & Wibowo, 2021a; Yunus & Indrasari, 2017). The Covid-19 pandemic also impacted tourism stakeholders, leading to adaptation strategies for resilience and market focus (Purnomo & Aristin, 2021a). The findings of previous studies collectively indicate a gap in research focused on specifically identifying the role of the tourism sector on

macroeconomic indicators in East Java Province by mapping 34 Regencies and Cities using diverse methods.

## RESEARCH METHOD

This study uses a quantitative descriptive approach utilizing secondary data obtained from dynamic tables of the Central Bureau of Statistics (BPS) for 38 Regencies/Cities in East Java Province for the years 2019 and 2023. The data used in this study is the total GRDP at current prices (ADHB) in the accommodation and food & beverage provision sector by regency/city in East Java Province as an indicator to view the contribution of the tourism sector to GRDP. According to the [Statistical Standardization Dictionary \(2020\)](#) in the Indonesian Standard Industrial Classification (KLBI), the Accommodation and Food & Beverage Provider sector includes the provision of short-term lodging accommodation for visitors and travelers, as well as the provision of food and beverages for immediate consumption (BPS, 2020). Additionally, the data analyzed in this study also includes macroeconomic variables such as economic growth, Gini ratio, poverty rate, and unemployment rate in 38 Regencies/Cities in East Java Province. Table 1 below lists the names of Regencies/Cities in East Java Province along with their regional codes to facilitate data analysis.

Table 1. Regencies/Cities in East Java Province

Regency/City in East Java	District/City Code	Regency/City in East Java	District/City Code
Kabupaten Pacitan	1	Kabupaten Magetan	20
Kabupaten Ponorogo	2	Kabupaten Ngawi	21
Kabupaten Trenggalek	3	Kabupaten Bojonegoro	22
Kabupaten Tulungagung	4	Kabupaten Tuban	23
Kabupaten Blitar	5	Kabupaten Lamongan	24
Kabupaten Kediri	6	Kabupaten Gresik	25
Kabupaten Malang	7	Kabupaten Bangkalan	26
Kabupaten Lumajang	8	Kabupaten Sampang	27
Kabupaten Jember	9	Kabupaten Pamekasan	28
Kabupaten Banyuwangi	10	Kabupaten Sumenep	29
Kabupaten Bondowoso	11	Kota Kediri	30
Kabupaten Situbondo	12	Kota Blitar	31
Kabupaten Probolinggo	13	Kota Malang	32

Regency/City in East Java	District/City Code	Regency/City in East Java	District/City Code
Kabupaten Pasuruan	14	Kota Probolinggo	33
Kabupaten Sidoarjo	15	Kota Pasuruan	34
Kabupaten Mojokerto	16	Kota Mojokerto	35
Kabupaten Jombang	17	Kota Madiun	36
Kabupaten Nganjuk	18	Kota Surabaya	37
Kabupaten Madiun	19	Kota Batu	38
Jawa Timur			39

Source: BPS, 2024

The data analysis technique used in this study is linear correlation analysis with a 4-quadrant scatter plot using Microsoft Excel. Linear correlation analysis is a statistical method used to measure the strength and direction of the linear relationship between two variables. This correlation is represented by the correlation coefficient ( $r$ ), which ranges from -1 to +1. A value of +1 indicates a perfect positive correlation, -1 indicates a perfect negative correlation, and 0 indicates no correlation (National Development Planning Agency, n.d.). To visualize the relationship between these two variables, a scatter plot is used. A scatter plot

displays data points on a two-dimensional plane, with one variable on the X-axis and the other on the Y-axis. Scatter plots help in identifying patterns or trends in data as well as the strength and direction of the relationship between these variables. In practice, scatter plots are often used together with quadrant analysis to provide deeper insights and to view the distribution of index values by region. Quadrant analysis divides the scatter plot into four areas (quadrants) based on a center point determined by the user. In the context of this study, the categories for each quadrant can be seen in Figure 3.

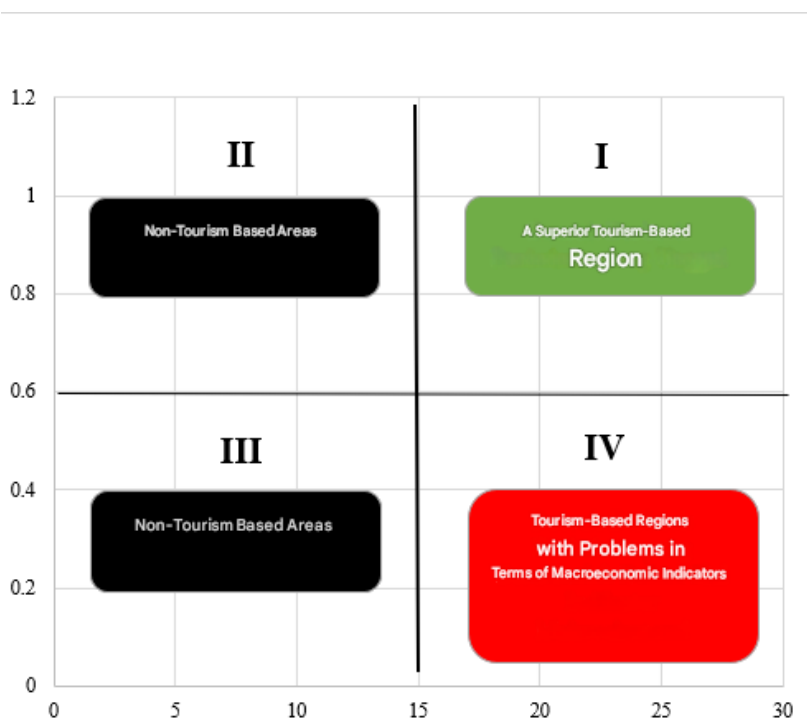


Figure 3. 4-Quadrant Scatter Plot

Quadrant analysis is also known as Importance-Performance Analysis (IPA). According to Shia et al.

(2016), IPA (Importance-Performance Analysis) is a technique to identify service attributes that can be

improved and those that need to be prioritized. This method is widely used in various fields of research because of its simplicity and ability to show analysis that leads to performance or quality improvement.

## RESULTS AND DISCUSSION

The tourism sector is one of the sectors that plays an important role as a leading sector in East Java Province, especially in encouraging economic growth. Therefore, the local government continues to encourage the growth and acceleration of the tourism sector because of its high potential in improving community welfare through job creation and additional income for local residents. Additionally, this sector plays an important role in achieving economic development indicators because it can influence various other economic sectors. However, after the COVID-19 pandemic, this sector became one of the most affected. This article will discuss the role of the tourism sector on macroeconomic indicators in East Java Province.

### The Role of the Tourism Sector on Economic Growth

To understand the problems faced by tourism-based regions, this study highlights the role of the tourism sector on economic growth in the Regencies/Cities of East Java Province. The scatter plot for 2019 and 2023 shows interesting data. In 2019, it is seen that all regions with a high tourism sector also experienced good economic growth, indicating a positive contribution of the tourism sector to economic growth in all these regions. However, the 2023 data shows an anomaly in Mojokerto City, which is in quadrant IV of the scatter plot, displaying a significant contribution from the tourism sector but with low economic growth. This indicates obstacles or challenges hindering the tourism sector from driving economic growth in that region optimally.

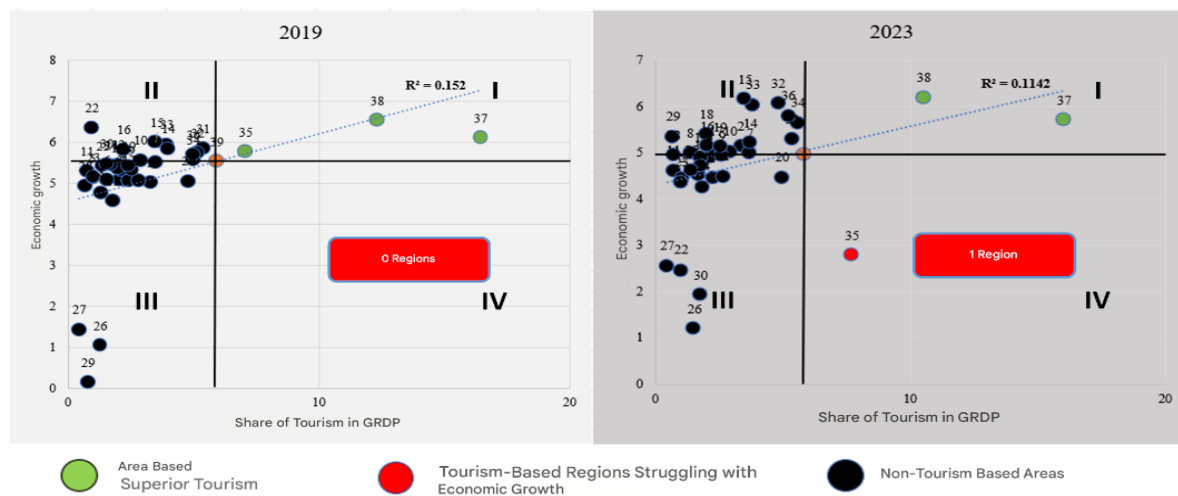


Figure 4. The Role of the Tourism Sector on Economic Growth in Regencies/Cities of East Java Province

Tourism's contribution to East Java's economic growth as a whole is still relatively low. This can be seen from the  $R^2$  value which is around 11.42 percent in 2023, compared to 2019 which had an  $R^2$  value of around 15.2 percent. The decrease in the  $R^2$  value indicates that the relationship between the tourism sector and East Java's economic growth is diminishing from year to year. In addition, several regions that remain superior in the tourism sector in both periods are Batu City and Surabaya City, which shows that the tourism sector in both cities is able to make a significant contribution to their economic growth. This study's results are supported by research findings in East Java Province

showing that the tourism sector, especially hotel investment and the number of foreign tourists, has a positive and significant contribution to GRDP (Subardini, 2017). Research results by Eka Andri Kurniawan (2018) show that the tourism sector contributes significantly to the formation of Gross Regional Domestic Product (GRDP) in East Java, with a multiplier effect that drives economic activity in the region. Input-Output analysis reveals direct and indirect relationships of the tourism sector with other economic sectors, highlighting its substantial impact on East Java's GRDP. Meanwhile in West Java, the restaurant and food

provider subsector in tourism contributes significantly to the overall provincial GRDP (Wulandari, 2018).

### The Role of the Tourism Sector on Poverty

Current economic development indicators focus not only on economic growth but also on poverty alleviation. This is the basis for analyzing the role of the tourism sector on poverty in the Regencies/Cities of

East Java Province. The data displays the condition of tourism-based regions in the context of poverty in 2019 and 2023. In both years, no region was in quadrant I, meaning there were no regions with a high tourism sector contribution but also a high poverty rate. This shows that the tourism sector functions well in lowering or maintaining low poverty rates in regions with significant tourism contributions.

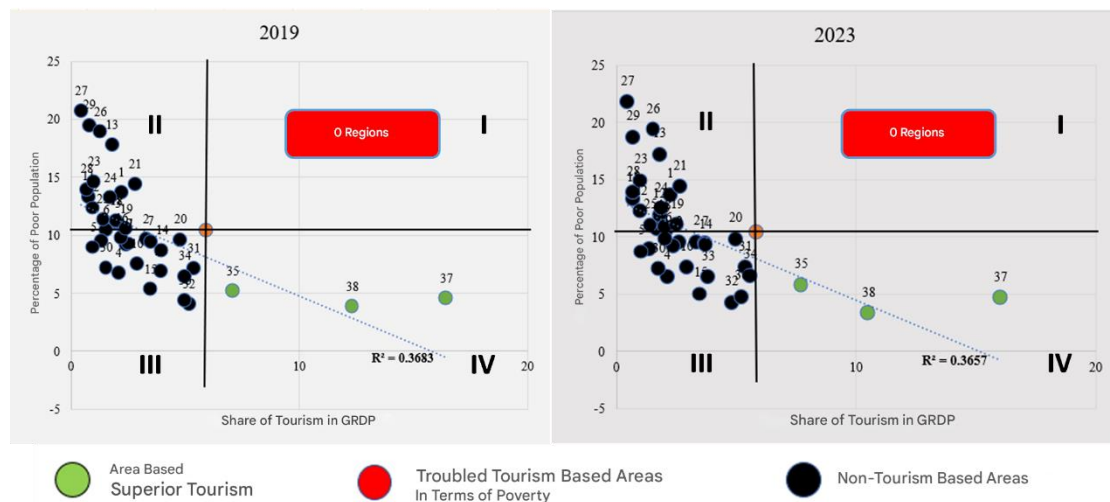


Figure 5. The Role of the Tourism Sector on Poverty in Regencies/Cities of East Java Province

The tourism sector is expected to help alleviate poverty in the community. Based on data, the contribution of the tourism sector to poverty in East Java tends to be stable. The  $R^2$  value in 2019 showed 36.83 percent, indicating a sufficient link between tourism and poverty, although the contribution could still be improved. In 2023, the  $R^2$  value decreased slightly to 36.57 percent, showing that the tourism sector's contribution to poverty reduction did not experience a significant increase. Batu City and Surabaya City remain superior in the tourism sector and do not experience poverty problems. These findings reinforce previous research that the development of the tourism sector has a negative but significant impact on poverty, with better sector development correlating with a decrease in poverty rates (Anggraini & Pujiati, 2022a). Additionally, the number of tourists visiting a destination can indirectly influence the percentage of poor people, although tourism expenditure itself does not contribute significantly to poverty reduction in developing countries (Anggraini & Pujiati, 2022a). Research conducted by Zainuri et al. (2021) on ASEAN countries, including Indonesia, highlights that investment variables and employment rates in the tourism sector consistently reduce poverty rates, emphasizing the impact of tourism on poverty reduction. These findings highlight the

complex relationship between tourism and poverty, emphasizing the importance of strategic investment and policies to maximize the positive impact of tourism on poverty alleviation.

### The Role of the Tourism Sector on Inequality

The role of the tourism sector on income inequality in the Regencies of East Java Province aims to determine the problems of tourism-based regions regarding income inequality using the Gini indicator. Based on the data, it can be seen which tourism-based regions have relatively high income inequality. In 2019, only one region was in quadrant I, namely Surabaya City (37). This means that Surabaya was the only tourism-based region that had a high level of income inequality even though its tourism sector was developing. This condition shows that tourism in Surabaya City has not been able to effectively reduce income inequality in the region. However, in 2023, the situation worsened with the addition of Kediri and Blitar Regency in quadrant I. This indicates that tourism in both regions has also not been able to reduce existing income inequality. The increase in the number of regions in quadrant I could be caused by various factors, including the negative impact of the COVID-19 pandemic affecting the economy and community welfare (Laila et al., 2021).

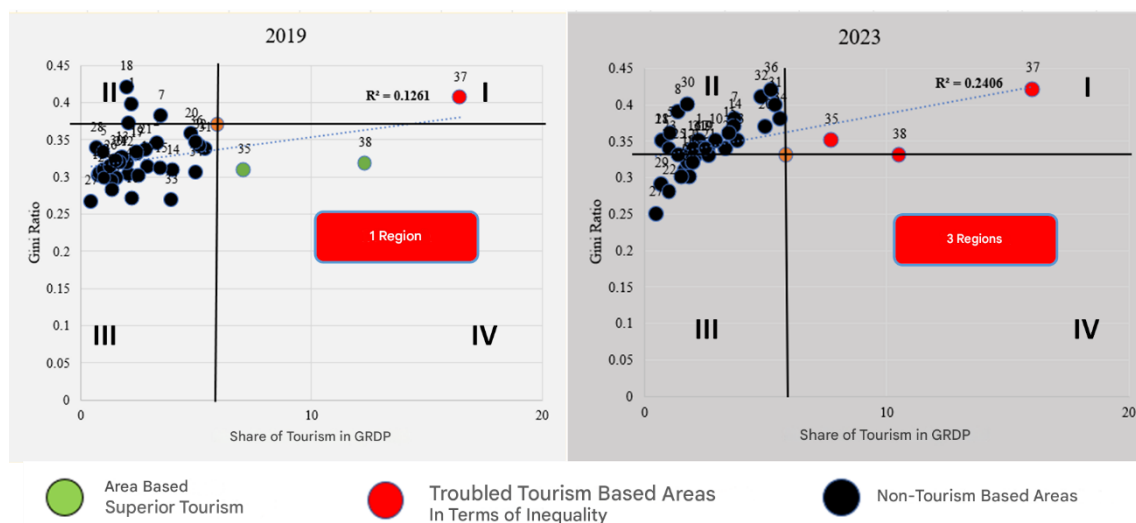


Figure 6. The Role of the Tourism Sector on Income Inequality in Regencies/Cities of East Java Province

The next indicator is the Gini Index which can show income inequality of the population in East Java thoroughly. From the scatter plot analysis, the role of the tourism sector on the Gini Index increased after the pandemic. This increase shows that the tourism sector has not been able to overcome income gaps between residents post-pandemic. In 2019, there was 1 tourism-based region with problems regarding income inequality, namely Mojokerto City. The  $R^2$  value of around 12.61 percent shows a low correlation between tourism contribution and income inequality in that year. In 2023, the number of tourism-based regions with problems regarding income inequality increased to 3 regions: Mojokerto City, Surabaya City, and Batu City. The  $R^2$  value increased to 24.06 percent, showing that the contribution of the tourism sector to income inequality is becoming more visible, although not yet optimal in reducing inequality. The tourism sector's contribution is not yet optimal in improving income equity in East Java, indicated by the quadrant analysis results of Mojokerto City, Surabaya City, and Batu City which are included as tourism-based regions but still experience significant income inequality, showing the need for more effective policies to support this sector in reducing income gaps.

Overall, the tourism sector in East Java shows an increase in its contribution to income inequality post-pandemic. However, there are still some regions experiencing significant income inequality, showing that this sector is not yet fully effective in reducing gaps. Research by [Adhitya et al. \(2020\)](#) using GRDP values of the accommodation and food/beverage provider sector in the Special Region of Yogyakarta revealed that tourism has a negative and significant impact on income

inequality, showing that tourism benefits are not evenly distributed among the community; although tourism infrastructure in Yogyakarta developed significantly, it did not lead to a more even income distribution among the population. Rapid growth of facilities such as hotels, transportation, and restaurants in Yogyakarta did not contribute to income distribution in the region, with benefits tending to spread among the wealthier population. The impact of tourism on income distribution highlights the need for policymakers to address gaps created by tourism development and ensure that benefits are shared more fairly among all income groups in the region. Furthermore, research by [Joko \(2017\)](#) explains the reason tourism in Bali causes inequality is due to unequal benefits between capital owners and upper-class workers compared to lower-class workers, with uneven distribution of tourism destinations exacerbating economic gaps. Additionally, government spending in the tourism sector in Bali is more focused on supporting tourism activities than investment, so economic growth does not improve community welfare and causes income inequality.

### The Role of the Tourism Sector on Unemployment Rate

Fourth, the role of the tourism sector on unemployment in the Regencies/Cities of East Java Province aims to determine the problems of tourism-based regions regarding unemployment conditions. Based on the data, it can be seen that tourism-based regions with relatively high unemployment rates are visible in Surabaya City.

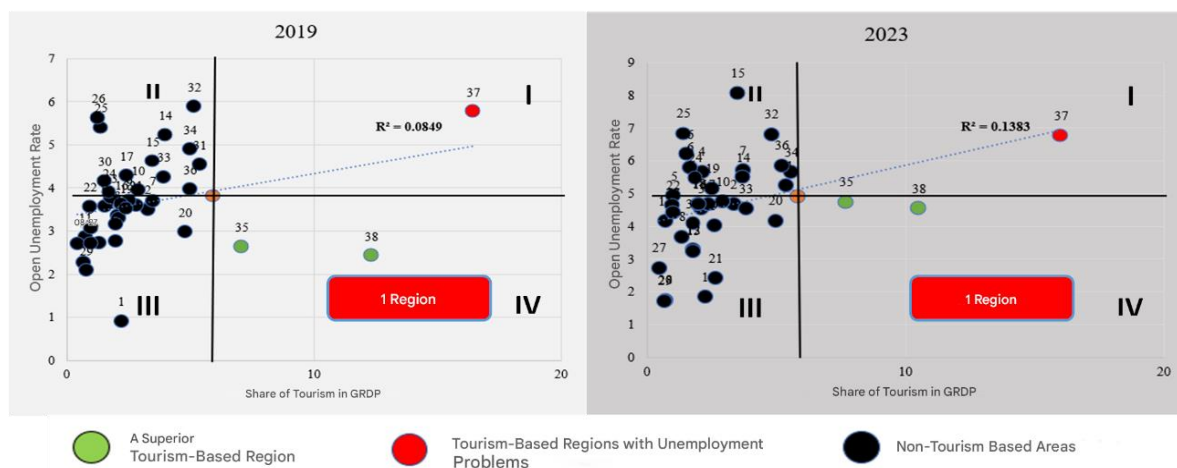


Figure 7. The Role of the Tourism Sector on Unemployment in Regencies/Cities of East Java Province

In 2019, there was one region in quadrant I, namely Surabaya City (37). This means Surabaya City was the only tourism-based region with a high unemployment rate in that year even though its tourism sector was developing. This shows that the tourism sector in Surabaya City has not been able to effectively lower the unemployment rate in the region. Meanwhile, in 2023, the condition in Surabaya City has not changed, where the unemployment rate remains high even though the contribution of its tourism sector is quite significant. This indicates that although the tourism sector is developing, its impact on reducing unemployment in Surabaya City is still not optimal.

As a sector with great potential to create jobs, tourism is expected to reduce unemployment in East Java. The scatter plot analysis results show that the linkage of tourism's role to the open unemployment rate changed post-pandemic. In 2019, there was 1 tourism-based region with problems regarding unemployment, namely Surabaya City. The  $R^2$  value of around 8.49 percent shows a very low correlation between tourism contribution and the open unemployment rate in that year. In 2023, the situation did not change much; there was still 1 tourism-based region with problems regarding unemployment, namely Surabaya City. However, the  $R^2$  value increased to 13.83 percent, showing that the contribution of the tourism sector to the open unemployment rate is starting to be seen, although its contribution can still be improved. This condition may be caused by the resumption of productive economic sectors in East Java, which can increase community income, especially informal workers. This condition is also related to the Open Unemployment Rate (IPI) of East Java which decreased, accompanied by an improvement in the Labor Force Participation Rate

(TPAK). However, the number of tourism-based regions with high open unemployment rates remained at one region from 2019 to 2023. Tourism-based Surabaya City was unable to absorb more labor, so it continued to experience high unemployment rates. Conversely, other superior regions in the tourism sector such as Mojokerto City and Batu City were able to maintain or improve their positions in terms of low open unemployment rates. This shows that the tourism sector in these regions was able to absorb more labor. Moreover, workers in the informal sector tend to be more vulnerable during a pandemic. Consistent with Kurniawan (2018), the tourism sector is a significant labor absorber because it can generate direct employment in hotels, transportation, and related services. Beyond direct roles, the multiplier effect of this sector stimulates employment in related industries, creating a broader impact on labor absorption. This diversity of job opportunities, from skilled to unskilled positions, contributes to the decline in unemployment rates and improvement of livelihoods. As tourism develops, it drives economic growth by increasing labor demand in various sectors, which ultimately increases labor participation and reduces unemployment (Kurniawan, 2018).

### Policy Recommendations

Based on studies and previous research, several recommendations can be applied to overcome obstacles and increase the contribution of the tourism sector to economic growth, poverty reduction, income inequality reduction, and unemployment reduction in East Java.

First, improvement of tourism infrastructure is very important. Al Faruqi et al. (2018) emphasize the importance of adequate infrastructure to support the

tourism sector. Local governments must focus on improving accessibility to tourist destinations through the construction of roads, public transportation, and supporting facilities such as airports and ports. Research by Gössling et al. (2009) in various countries shows that good infrastructure can increase the attractiveness of tourist destinations and accelerate local economic growth.

Second, effective and coordinated marketing strategies are needed to promote tourist destinations. Satria & Wibowo (2021b) suggest the use of social media, digital marketing campaigns, and cooperation with travel agencies to increase the visibility and attractiveness of tourist destinations in East Java. Research by Hays et al. (2013) shows that effective digital marketing can significantly increase the number of tourists and tourism sector revenue.

Third, development of unique superior tourism products can attract more tourists. Buditiawan (2020) shows that East Java has natural, cultural, and historical tourism potential that can be developed into attractive tourism products. Research by Richards (2011) emphasizes the importance of tourism product diversification to meet diverse tourist needs and increase destination competitiveness.

Fourth, training and capacity building for local communities involved in the tourism industry is very important. Anggraini & Pujiati (2022b) highlight the importance of training programs to improve service quality, management skills, and foreign language abilities, thereby increasing the competitiveness of the East Java tourism sector. Baum et al. (2016) in their international research also show that investment in tourism workforce education and training can improve service quality and tourist satisfaction.

Fifth, sustainable tourism development is very important to ensure that the positive impact of tourism can be felt in the long term. Purnomo & Aristin (2021b) recommend wise natural resource management, local culture protection, and community participation in the decision-making process. Research (Hall, 2013) shows that sustainable tourism can reduce negative environmental and social impacts and increase long-term economic benefits.

Sixth, diversification of tourism products and destinations can help distribute economic benefits more evenly throughout East Java. (Yanto & Al Ammaru, 2024) emphasize the importance of developing new destinations in less developed areas to spread tourism economic benefits more widely. Research by Ceron & Dubois (2003) also shows that destination

diversification can reduce dependence on a few locations and reduce economic risk.

Therefore, to overcome poverty, investment in tourism infrastructure that creates new jobs and encourages local economic development is very important. Training and capacity building programs for local communities must be improved so that they can participate in and benefit from the tourism industry. Inclusive and sustainable tourism development ensures economic benefits are felt by all levels of society. Then to reduce income inequality, improving accessibility and quality of education and training for local communities is very important. Diversification of tourism products and expansion of the tourism market helps distribute economic benefits more evenly. Investment in the tourism sector must include the construction of basic infrastructure such as housing, health, and transportation to improve the quality of life of local communities. Support for micro, small, and medium enterprises (MSMEs) in the tourism sector can increase community income and reduce inequality. Besides that, in terms of reducing unemployment, training and education for local workers in the tourism sector must be improved. Diversification of tourism products and destinations can create more jobs in various regions. Investment in tourism infrastructure must include the construction of supporting facilities such as transportation, housing, and health services to improve the quality of life of local workers. Effective promotion and marketing can attract more tourists and create more jobs in the tourism sector and related sectors. By implementing these recommendations, it is hoped that the tourism sector in East Java can make a more significant contribution to increasing economic growth, reducing poverty, reducing income inequality, and reducing unemployment, thereby improving the overall welfare of the local community. International studies also support these recommendations, showing that a comprehensive and sustainable approach in tourism development can provide significant economic, social, and environmental benefits.

## CONCLUSION

The tourism sector in East Java Province plays a role in driving economic growth, creating jobs, reducing poverty, and influencing income inequality. However, the COVID-19 pandemic had a significant impact on this sector, resulting in several challenges that need to be addressed to optimize tourism's contribution to economic development. Some regions were able to maintain good performance, while others require special

attention. This analysis is important for formulating targeted policies to drive the economy through the tourism sector and overcome obstacles in economic growth, poverty reduction, income inequality, and unemployment in Regencies/Cities that are tourism bases in East Java.

From the results of the quadrant analysis conducted, this study recommends: Optimization of Tourism Sector Potential: Local governments need to identify and overcome obstacles hindering the optimization of the tourism sector, especially in regions showing anomalies such as Mojokerto City. Effective marketing strategies and adequate infrastructure development can help increase the tourism sector's contribution to economic growth.

Further efforts are needed to increase the tourism sector's contribution to poverty reduction. Training and capacity building programs for local communities, as well as the promotion of local products, can help improve community welfare through the tourism sector. More inclusive and fair policies are needed to ensure tourism benefits are felt by all levels of society. The government can provide incentives for micro, small, and medium enterprises (MSMEs) in the tourism sector and encourage local community participation in tourism activities.

To reduce unemployment, especially in areas like Surabaya City, the government needs to create more job opportunities through the tourism sector. Skills training and certification programs for local workers in the hotel, transportation, and related service sectors can help improve labor absorption. With the right policies and effective implementation, the tourism sector in East Java Province can contribute significantly to inclusive and sustainable economic development.

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