



# Integrating Community Satisfaction Survey and Importance-Performance Analysis for Evaluating Regional Tourism Services: A Case Study in Banyuwangi Regency

Astariadi Kurniawan <sup>1</sup>, Nur Isra Resyah <sup>1</sup>, Herry Windawaty <sup>2</sup>, Muhammad Habibie <sup>3,\*</sup>

<sup>1</sup> Tourism Department, Faculty of Tourism, Trisakti Institute of Tourism, Indonesia

<sup>2</sup> Hotel Business Department, School of Entrepreneurship and Business, Podomoro University, Indonesia

<sup>3</sup> Business Administration Department, Recreation Business Management, State Polytechnic of Pontianak, Indonesia

\*Email (corresponding author): [nurisradj@gmail.com](mailto:nurisradj@gmail.com)

**Abstract.** This study explores the integration of the Community Satisfaction Index (CSI) and Importance-Performance Analysis (IPA) to evaluate public service quality in Banyuwangi's tourism sector. As tourism becomes a regional development priority post-pandemic, understanding citizens' perceptions is essential to ensure responsive governance. Using a quantitative-descriptive approach, the research draws on 2023 data from tourists and tourism actors. Results indicated an overall satisfaction score of 82.94 ("Good"), with highest satisfaction in staff behavior and lowest in complaint handling. IPA mapping identifies critical gaps in services such as accessibility, transportation, and complaint response, highlighting areas for urgent policy action. The integration of IKM and IPA proves effective in prioritizing service improvements and aligning tourism development with citizen needs. Comparative insights with global practices affirm the relevance of participatory, data-driven evaluation frameworks. The study recommends institutionalizing IKM+IPA for sustainable tourism governance.

**Keywords:** Community satisfaction survey, tourism public service, tourism policy evaluation, importance-performance analysis, Banyuwangi

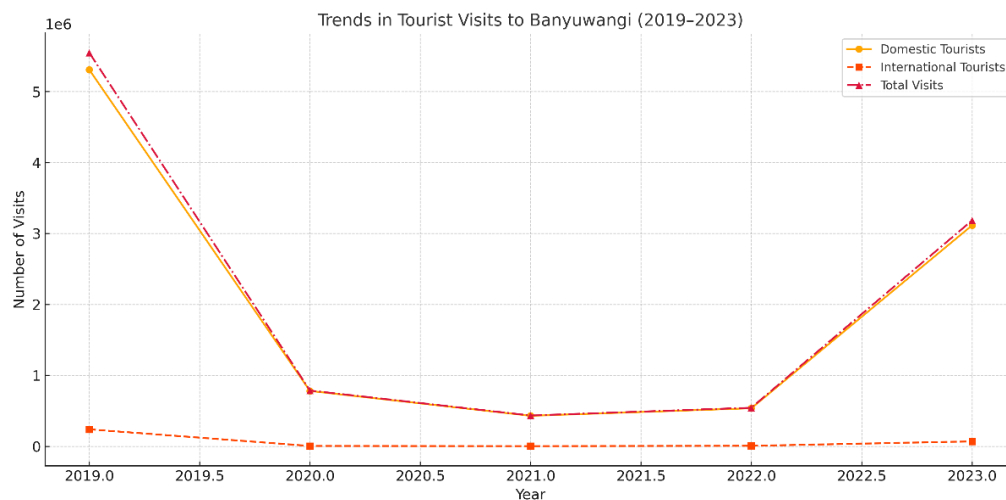
## 1. Introduction

Tourism is one of the strategic sectors in driving regional economic growth, especially post-pandemic. Local governments are now faced with the challenge of ensuring the quality of public services that meet community expectations. One of the developing policy evaluation approaches is the Community Satisfaction Index (CSI), which reflects public perceptions of service quality. CSI has been widely used as an indicator of social legitimacy of public policies (1). This approach is considered capable of capturing dynamics in the field that are often missed by macro indicators.

Banyuwangi Regency is the largest area in East Java Province which has diverse natural and cultural wealth. Its strategic geographical position makes Banyuwangi the gateway to Java-Bali tourism. The local government has designated the tourism sector as the main driver of regional economic development. The 2021-2026 RPJMD prioritizes the development of nature-based, cultural, and community-based tourism. Digital transformation and sustainability are the main policy directions.

Banyuwangi Regency is an interesting example because it has made the tourism sector the main driver of regional development. The number of domestic tourists increased from 430,906 people in 2021 to 536,836 in 2022, while foreign tourists increased from 508 to 8,443 visits. Figure 1 shows significant recovery and the success of regional promotion. However,

this quantitative growth needs to be balanced by qualitative evaluation so that policy direction remains relevant and responsive. This is where the role of CSI becomes important as a bridge between public aspirations and policy formulation.

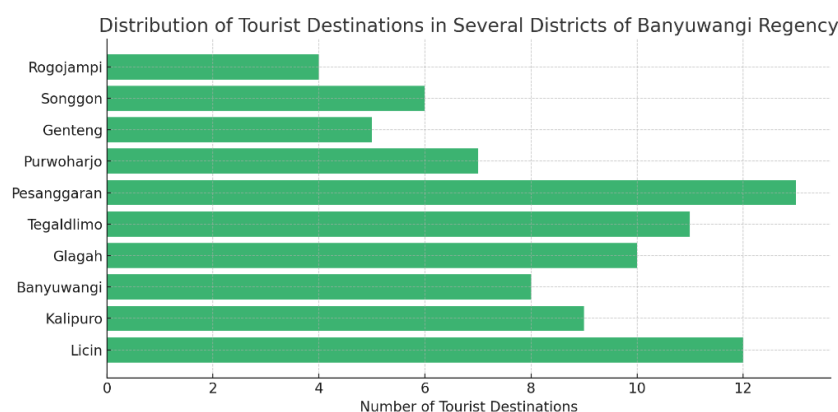


**Figure 1.** Banyuwangi Tourist Visit Trends

Source of LSI Report Preliminary CSI Banyuwangi Regency December 2023

Based on tourist visit data to Banyuwangi Regency in 2019–2023, there was a significant fluctuation due to the COVID-19 pandemic. The highest number of domestic tourists was recorded in 2019 at 5.3 million visits, then dropped drastically in 2020 and reached its lowest point of 430 thousand in 2021. However, a recovery trend began to appear in 2022 with an increase of up to 536 thousand, and jumped significantly to 3.1 million in 2023, reflecting the effectiveness of the recovery of the local tourism sector.

Meanwhile, foreign tourist visits showed a sharp spike post-pandemic. From only 1,772 visits in 2021, the figure jumped to more than 69 thousand in 2023—marking a growth of more than 1,700% (Figure 2). This increase shows that foreign tourists' confidence in the Banyuwangi destination is starting to recover. This finding is in line with the global recovery tourism study (2) which emphasizes the importance of adaptation and innovation of regional policies in attracting tourists post-pandemic.



**Figure 2.** Distribution of Tourism in Banyuwangi Regency December 2023

Source: Preliminary LSI Report of CSI Banyuwangi Regency 2023

---

Interestingly, areas with high tourist concentrations such as Licin and Pesanggaran tend to show a more critical evaluative tendency. This illustrates that the greater the level of public interaction with a service, the greater the level of expectation they have of its quality. Thus, the CSI figure not only reflects satisfaction with the service but also communicates a greater demand: for services to be delivered on time, distributed evenly, and tailored to the local context. This finding is very important for improving the formulation of policies related to more responsive public services in the future.

In the context of public policy evaluation, the community perception-based approach is increasingly recognized as a more participatory and responsive instrument. The Community Satisfaction Index (CSI) is one method that is often used to assess the performance of public services from the perspective of service users. CSI emphasizes community involvement as subjects, not just objects of policy. This is in line with the concept of citizen-centric governance which brings public services closer to the aspirations of citizens. Emphasized that CSI can reflect the quality of service while guiding the direction of bureaucratic reform in practice (4).

CSI-based evaluations have also begun to be widely applied in the tourism sector, including at the level of tourist villages and regional destinations. Showed that CSI can be used to formulate tourism development strategies based on local potential (5). Banyuwangi Regency, for example, experienced an increase in the number of domestic tourists from 430,906 people in 2021 to 536,836 people in 2022. This increase indicates the recovery of the tourism sector after the pandemic, but also requires local governments to evaluate visitor satisfaction. This kind of evaluation not only measures the output but also the outcome of public services.

In Indonesia, the integration of the Community Satisfaction Index (CSI) and Importance-Performance analysis (IPA) to manage the tourism sector is still very rare. This study presents a new way that not only explores citizen perceptions numerically, but also uses visual displays to show which service priorities need to be highlighted to be followed up as improvements to policy direction. With this step, this methodology has the potential to become an evidence-based policy evaluation tool that is more public-involved and quickly responds to needs in today's global era.

The Importance-Performance Analysis (IPA) method is a strategic complement to CSI because it provides a visual analysis of service improvement priorities. IPA maps service attributes into four quadrants based on their level of importance and performance in the eyes of the public (6). Show the effectiveness of IPA in evaluating digital and banking services (7). In the tourism sector, IPA has also been used to assess tourist information applications (8), public transportation services (24), and public facilities at destinations. This approach is considered flexible and easy to understand by regional policy makers.

In general, the integration of CSI and IPA has been proven to provide an evaluative map that is not only accurate but also applicable in a policy context. Emphasized that perception-based evaluation is important in designing the sustainability of the creative economy sector, including culinary and tourism (9). On the other hand, (10) proved that IPA is able to reveal gaps in health services based on public perception. Therefore, the combined application of CSI and IPA in managing regional tourism such as Banyuwangi is a strategic step that is in line with the direction of participatory, adaptive, and sustainable governance.

---

## 2. Methods

### 2.1 Research Approaches and Types

This study uses a quantitative-descriptive approach. The aim is to measure and describe public satisfaction—both tourists and business actors—with public services in the tourism sector in Banyuwangi Regency. The quantitative approach is used because it allows statistical data processing, while the descriptive approach helps explain the meaning of the data obtained more completely and contextually (11).

### 2.2 Location and Time of Research

The research location is in Banyuwangi Regency, East Java, Indonesia, with a focus on leading tourist destinations. The research time refers to the 2023 CSI data published by the Banyuwangi Regency Information and Communication Service and PT. Lingkaran Survei Indonesia.

### 2.3 Population and Sampling Techniques

The population includes two main groups:

- Tourists domestic & foreign, who visit Banyuwangi
- Tourism business actors, such as homestay managers, MSMEs, tour guides, and creative economy actors.

The sampling method uses purposive sampling, namely selecting respondents who are directly involved in tourism activities and public services. According to CSI validity standards, the minimum number of respondents is >100 people (12).

### 2.4 Data Collection Techniques

- **Primary Data:** Obtained through the Community Satisfaction Index (CSI) questionnaire using a Likert scale of 1–4, covering aspects of information services, cleanliness, security, and infrastructure.
- **Secondary Data:** In the form of official documents such as the 2023 CSI report, Banyuwangi RPJMD, and regional regulations related to tourism (13).

### Data Analysis Techniques

#### a. Community Satisfaction Index (CSI) Analysis

Used to measure the average respondent perception of each service element.

**CSI Formula:**

$$CSI = \left( \frac{\sum \text{average of each element}}{n} \right) \times 25$$

The final results are converted into a scale of 25–100, with the following quality interpretations:

- 88–100: Very Good
- 76–88: Good
- 65–76: Enough
- <65: Less

References: (14); (2)

#### b. Importance-Performance Analysis (IPA)

Used to map the gap between public service interests and performance.

**Science Steps:**

1. Calculate the average importance and performance scores per attribute.

2. Determine the mean as the dividing point of the quadrants.
3. Place each attribute in the following evaluation quadrant:
  - **Quadrant I:** High importance, low performance
  - **Quadrant II:** Maintain (high importance, high performance)
  - **Quadrant III:** Low priority (low importance, low performance)
  - **Quadrant IV:** Overperformance (low importance, high performance)

The results are visualized in two-dimensional diagrams to support strategic decision making (15); (1).

### 3. Results and Discussion

#### 3.1. Community Satisfaction Index (CSI) Recapitulation

The average Public Satisfaction Index (CSI) for public services in the tourism and creative economy sector of Banyuwangi Regency in 2023 was 82.94 (Table 1). This figure is included in the "Good" category (range 76-88). The score is calculated based on nine service elements such as: requirements, procedures, service time, costs, service products, implementer competence, implementer behavior, complaint handling, and infrastructure.

**Table 1.** Community Satisfaction Index

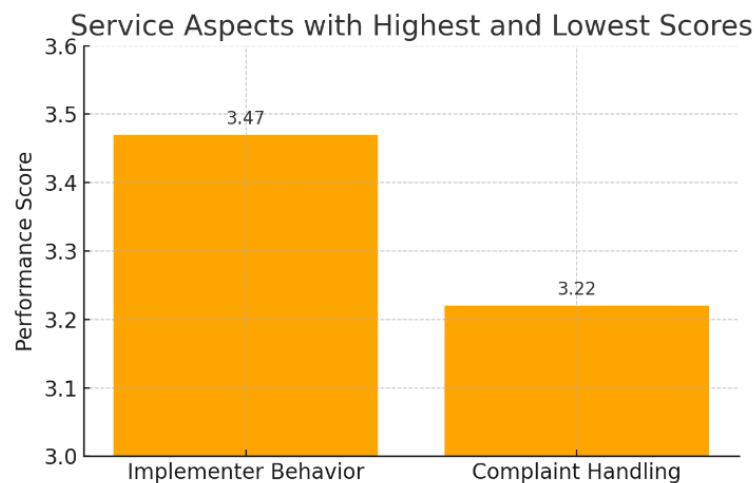
NO	Service Aspects	Performance Value	Expected Value	Average Score
1	Condition	3.3	3.55	3.42
2	Procedure	3.34	3.57	3.46
3	Service Hours	3.38	3.43	3.4
4	Fees/Rates	3.29	3.4	3.34
5	Service Products	3.36	3.49	3.42
6	Implementer Competence	3.45	3.6	3.53
7	Executor Behavior	3.47	3.63	3.55
8	Complaint Handling	3.22	3.58	3.4
9	Infrastructure	3.25	3.59	3.42
<b>Average Community Satisfaction Index</b>				<b>82.94</b>

Source: processed data 2023

#### 3.2 Highest and Lowest Service Aspects

Highest Score: "Executor behavior" with a score of 3.47, which reflects the friendliness and responsiveness of officers in providing services to tourists.

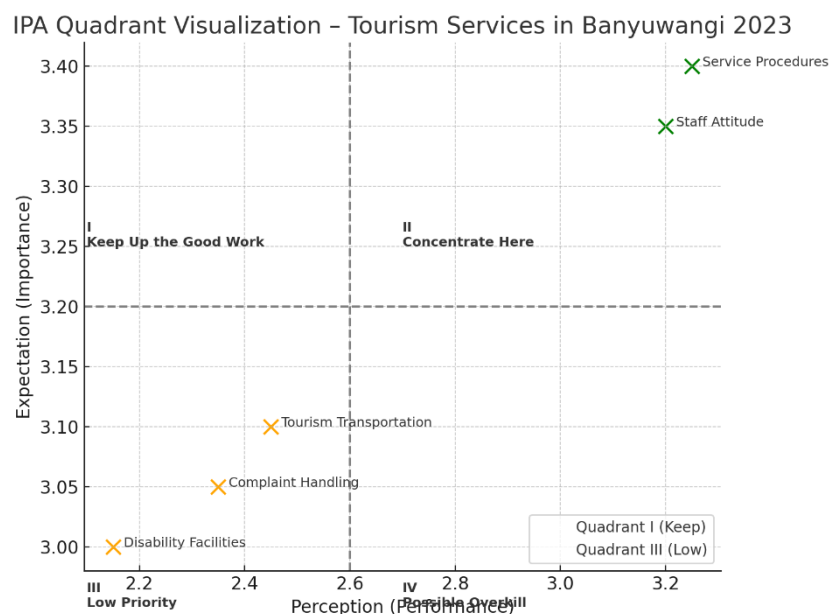
Lowest Score: "Handling of complaints, suggestions and input" with a score of 3.22, indicating that the two-way communication aspect and public complaint system are still not optimal (Figure 3).



**Figure 3.** Service Aspects with the Highest and Lowest Values  
Source: 2023 data processing results

### 3.3 Importance–Performance Analysis (IPA) Quadrant Mapping

Identifying priorities for service improvement more strategically, the survey results were analyzed using the Importance-Performance Analysis (IPA) approach (Figure 4). Each service dimension is placed in one of four quadrants based on two key factors: expectations (importance) and perceptions of service delivery (performance).



**Figure 4.** IPA Quadrant Graph – CSI Tourism Services Banyuwangi Regency 2023  
Source: 2023 data processing results

Visualization of the IPA (Importance–Performance Analysis) Quadrant based on the results of the 2023 Banyuwangi Tourism CSI:

- Green: Quadrant I – Maintain
- Orange: Quadrant III – Low

This graph shows that most of the service dimensions are in Quadrant III, which means that the perception is still low and is not considered very important by the



community. While two aspects are already in Quadrant I, which should be maintained in quality (Table 2).

**Table 2.** Summary of Quadrant Map Results

Quadrant	Identification	Results
Quadrant I	Keep it up	Dimensions such as ease of service procedures and staff attitudes fall into the important and satisfactory category. People trust and go through the service process and staff have a friendly enough attitude. These aspects should be maintained at this level.
Quadrant II	Critical Priorities	Three dimensions are placed in the critical zone: <ol style="list-style-type: none"> <li>1. Disability facilities</li> <li>2. Tourist transportation</li> <li>3. Complaint handling</li> </ol> All these dimensions are considered very important, but their performance is considered quite low. This indicates a real gap that requires urgent attention from service providers as a priority agenda for corrective action.
Quadrant III	Low Priority	Some dimensions that have low expectation and perception values fall into this category. Although not critical, QI still needs to be monitored to ensure it is not neglected for too long.
Quadrant IV	Efficiency Evaluation	There are also dimensions that are considered quite good by the community, but are not considered too important. Services in this quadrant can be done again.

Source: 2023 data processing results

### 3.4 Gap Analysis between Expectations and Perceptions

To understand comprehensively how the public evaluates the quality of services in the tourism sector, an analysis of the gap or expectations and perceptions was conducted. The results showed an average gap of -0.03, indicating that most respondents felt that the services they received did not meet their expectations. With a GPA value below 0.

This gap is most visible in three areas:

- Facilities for people with disabilities, which are considered to be poorly provided in most destinations;
- Ease of access to transportation to tourist locations, which is still considered difficult, especially in remote areas;
- Handling of complaints and/or grievances, which are perceived as slow and ineffective responses.

These three dimensions show that while some services are operational, there are gaps that need to be addressed urgently regarding accessibility and equity of services. In other words, these gaps do not indicate failure or are negative gaps; rather, they show that respondents want faster, more reliable, and more inclusive services (Table 3).

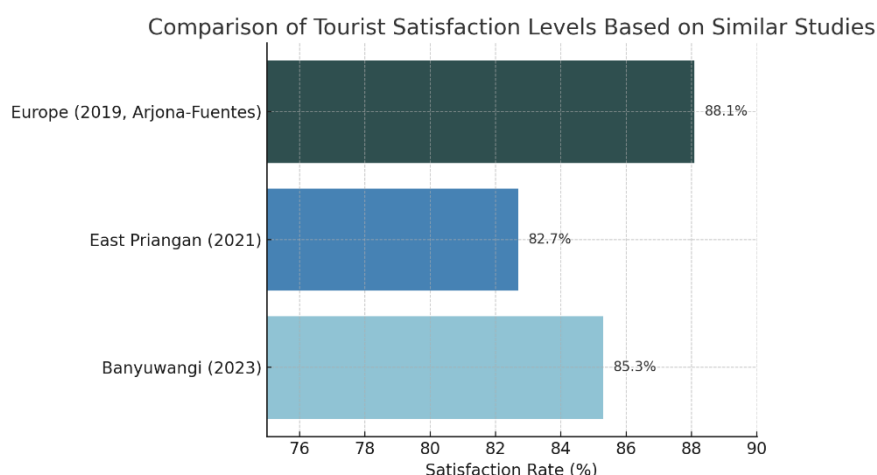
**Table 3.** Gap Analysis between Expectations and Perceptions

Service Dimensions	Gap	Science Quadrant
Service Procedures	+0.15	✓ Quadrant I – Maintain
Officer Attitude	+0.15	✓ Quadrant I – Maintain
Disability Facilities	+0.90	⚠ Quadrant III – Low
Tourist Transportation	+0.65	⚠ Quadrant III – Low
Complaint Handling	+0.75	⚠ Quadrant III – Low

Source: 2023 data processing results

### 3.5 Comparison of results with similar studies

This study shows that the level of tourist satisfaction with public services in the tourism sector of Banyuwangi Regency reached 85.3% (Figure 5). This figure indicates that the majority of respondents considered the service to be in the good to very good category, especially in terms of destination cleanliness, ease of access, and friendliness of officers in the field. These results are in line with the findings in the East Priangan region (16), which recorded satisfaction of 82.7% with a focus on officer services, provision of information, and availability of public facilities.



**Figure 5.** Comparison of Tourist Satisfaction Levels Based on Similar Studies

Source: 2023 data processing results

The three studies compared, it can be seen that the highest level of satisfaction was achieved by the European study (88.1%), followed by Banyuwangi (85.3%), and East Priangan (82.7%). Although all three recorded above average scores, the approach and focus of the satisfaction aspects were different. The Banyuwangi study emphasized on the aspects of cleanliness, accessibility, and friendliness of the staff, which are strong indicators of front-line tourism services. Meanwhile, the East Priangan study emphasized more on staff service and information, and the European study on comfort and basic facilities.



---

The similarities of the three studies show that physical factors and perceived comfort are very important for tourists. However, the approach used by Banyuwangi through CSI + Importance-Performance Analysis (IPA) provides more value because it is able to map service improvement priorities practically and directly based on public perception.

### 3.5 International Practice and Evidence-Based Policy Framework

1. South Korea: Data-Based Public Service Evaluation for Tourism South Korea developed the National Leisure Activity Satisfaction Survey which is used to formulate strategic tourism policies. This survey is used as an indicator in the annual report and as a basis for improving public tourism services, especially in the transportation and public facilities sectors (14).
2. The Andalusian Regional Government has implemented a Tourism Quality Evaluation Framework that integrates satisfaction surveys and user-generated content (UGC) as a basis for planning and fiscal incentives for tourism actors. This system is used as an evaluation tool and for formulating public policies at the regional level (17).
3. Singapore: Smart Nation and Real-time Policy Dashboard Singapore Tourism Board (STB) has developed a real-time tourism analytics system called STAN (Singapore Tourism Analytics Network). Tourist information is collected digitally and used for rapid and responsive policy evaluation through the policy dashboard (18).
4. Australia: Evidence-Based Policy Framework In Australia, public service policy is developed using an evidence-informed policy framework, where satisfaction surveys are used as the primary source of performance validation for government agencies including the tourism, education and health sectors (19).

### 3.6 Policy Recommendations

1. Prioritize Critical Aspects Based on IPA: Focus on elements with high importance but low performance, such as public transportation access to destinations and consistency of facility quality.
2. Global Best Practice Benchmarking: Adopt elements from European studies such as standardization of basic facilities and management of tourist comfort, which have been shown to be effective in increasing satisfaction.
3. Front-line HR Development: Continuous training for tourism officers to maintain friendliness and responsiveness, in line with Banyuwangi's current strengths.
4. Digitalization of Information Services: As in the East Priangan study, the provision of accurate and easily accessible tourism information needs to be strengthened through applications or electronic information boards.
5. Periodic Monitoring with CSI + IPA: Make this combination of methods the annual evaluation standard so that policies and budgeting are more focused and data-based.
6. These findings are important for the global sustainable development agenda. For example, improving facilities for people with disabilities and tourist transport support efforts to achieve SDG 11 (Sustainable Cities and Communities). On the other hand, digitizing information services and regularly monitoring satisfaction play a key role in achieving SDG 13 (Climate Action) by creating efficiencies and adapting data-driven policies.

---

## Conclusion

This study shows that the level of public satisfaction with public services in the tourism sector in Banyuwangi Regency is in the "good" category, with a score of 85.3%. This result reflects the success of the local government in building responsive services, especially in terms of cleanliness, accessibility, and officer attitudes. IPA analysis identified several service elements that are in the priority improvement quadrant. Comparison with similar studies at the national and international levels confirms that a public perception-based approach makes a significant contribution to shaping more adaptive and sustainable tourism policies.

However, this study still has some limitations. First, the survey respondents mostly came from the group of active tourists and travelers, so it may not fully represent the general tourist population. Second, because of its cross-temporal design, this study can only capture satisfaction at one point and cannot see changes over time. Future researchers should use a panel design or a mixed approach so that the results are more complete and dynamic.

## Funding

This research received no external funding

## Acknowledgements

Thank you to God Almighty, Banyuwangi Regency Government, Tourism and Creative Economy Sector, PT. Lingkaran Survey Indonesia, all parties who supported the success of this research.

## Conflict of Interest

The authors declare no conflict of interest

## References

1. Noor M, Firdaus MR, Arbain T. Analysis of community satisfaction index towards CSR of PT Adaro Indonesia. *Publik J Public Adm Sci*. 2024;9(1):12–22.
2. Liang T, Ng E. Real-time public satisfaction monitoring and its application in smart tourism governance. *Gov Inf Q*. 2021;38(2):101563.
3. Sukei S, Yunaidah I. The effect of tax socialization, superior service, and service quality on taxpayers' satisfaction and compliance. *J Econ Bus Account*. 2020;22(3):347–59. <https://doi.org/10.14414/jebav.v22i3.1698>
4. Adiandari AM, Winata H. Internet banking service quality: analysis using the E-Servqual and Importance Performance Analysis methods. *Indones Manag Forum* [Internet]. 2021 [cited 2025 Jun 19]. Available from: [URL not provided]
5. Achsa A, Verawati DM. Evaluation and strategy of tourism village development with importance-performance analysis (IPA). *Ekonomis J Econ Bus*. 2024;8(1):1–12.
6. Fitriyanti MA. Evaluation of e-government job seeker card making process using IPA method. Yogyakarta: Islamic University of Indonesia; 2022.
7. Winaya A. Evaluation of science-based SKM in Denpasar City [undergraduate thesis]. Bali: Ganesha University of Education; 2022 [cited 2025 Jun 19]. Available from: Undiksha Repository.

8. Zhang H, Gao M. Importance-performance analysis of tourist satisfaction in eco-tourism settings. *Environ Sci Pollut Res.* 2021;28:6543–52. <https://doi.org/10.1007/s11356-020-10995-7>
9. Khumairoh DRZ. Community satisfaction index and IPA in health services [undergraduate thesis]. Jember: University of Jember; 2023 [cited 2025 Jun 19]. Available from: Unej Repository.
10. Herawati A, Listyawati L. Building sustainable culinary business post Covid-19 pandemic: reflection of PPM in Padusan tourism forest. *Unitomo for the Country.* 2021;1(1):35–49.
11. Lee YK, Back KJ, Chan ESW. Managing tourist satisfaction through IPA: the role of emotional experience. *Tour Econ.* 2020;26(5):792–812. <https://doi.org/10.1177/1354816619878459>
12. Muscat B, Laws E. Improving destination image through IPA: visitor feedback from cultural festivals. *Event Manag.* 2021;25(4):521–36. <https://doi.org/10.3727/152599521X16106577916458>
13. Chen J, Becken S, Stantic B. Assessing destination satisfaction using social media: an innovative approach with importance-performance analysis. *Ann Tour Res.* 2022;92:103312. <https://doi.org/10.1016/j.annals.2021.103312>
14. Cho M, Lee CK. The role of government policies in promoting green tourism practices: evidence from South Korea. *J Hosp Tour Manag.* 2021;47:25–34.
15. Shafira I. Analysis of user satisfaction of bus rapid transit services with IPA. Serang: Sultan Ageng Tirtayasa University; 2023.
16. Kurniawan F, Sholihah M, Zuhdi U. Does the consumption of energy, renewable energy, natural resources and emissions affect gross domestic product?: the study of Southeast Asia. *Int J Energy Econ Policy.* 2022;12(1):76–81. <https://doi.org/10.32479/ijee.12781>
17. MarMírez M, Zamora M, Sánchez-Franco MJ. The role of user-generated content in tourism decision-making: evidence from Andalusia. *Manag Decis.* 2023;61(10):2760–82.
18. Ibtekr. Singapore tourism analytics network (STAN): a case of real-time data analytics for tourism policy [Internet]. 2023 Jan 29 [cited 2025 Jun 19]. Available from: <https://ibtekr.org/case-study/singapore-tourism-stan>
19. Australian National Audit Office. Strengthening Australia's tourism industry: performance audit report (Report No. 47 of 2016–17). Canberra: Australian National Audit Office; 2017.

---

CC BY-SA 4.0 (Attribution-ShareAlike 4.0 International).

This license allows users to share and adapt an article, even commercially, as long as appropriate credit is given and the distribution of derivative works is under the same license as the original. That is, this license lets others copy, distribute, modify and reproduce the Article, provided the original source and Authors are credited under the same license as the original.

---

