



Evaluating The Tourism Supply Chain Performance in Wukirsari Cultural Village, Yogyakarta: An Importance-Performance Analysis

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Abstract

Tourism villages play a vital role in Indonesia's sustainable tourism strategy by combining cultural preservation with local economic empowerment. Wukirsari Cultural Village in Bantul, Yogyakarta, is a well-known destination for its batik-making heritage and cultural attractions, but its competitiveness depends on the effectiveness of the tourism supply chain (TSC). This study evaluates the TSC performance of Wukirsari using the Importance-Performance Analysis (IPA) method. Primary data were collected through structured questionnaires distributed to visitors, while secondary data were obtained from official reports and statistics. The analysis shows that attractions scored the highest importance (mean = 4.54) with strong performance (mean = 4.09), highlighting batik workshops and cultural performances as the village's key strength. Conversely, infrastructure received the highest importance (mean = 4.57) but the lowest performance (mean = 3.83), revealing significant service gaps in sanitation facilities, water and electricity supply, and parking. Transportation, accommodation, and tour operator services were also found to underperform relative to visitor expectations, while culinary and shopping facilities performed moderately well. These findings indicate that while Wukirsari's cultural authenticity is its primary competitive advantage, improvements in infrastructure and supporting services are urgently required. The study contributes practical recommendations for policymakers, village managers, and local SMEs to prioritize infrastructure development, maintain cultural authenticity, and strengthen stakeholder collaboration for sustainable tourism.

Keywords: *Tourism Supply Chain, Importance-Performance Analysis, Cultural Village, Visitor Satisfaction, Sustainable Tourism*

INTRODUCTION

Tourism is recognized as one of the world's fastest-growing sectors, providing significant contributions to economic growth, cultural preservation, and community development. In Indonesia, the tourism industry accounted for 5.1% of the national GDP in 2022 and created jobs for over 22 million people (BPS, 2023). Nevertheless, the contribution remains below that of other popular destinations such as Spain (14%), Italy (13%), Turkey (11%), and Thailand (12%) (PwC Indonesia, 2022). To narrow this gap, Indonesia has focused on cultural villages, which are central to sustainable tourism development strategies, as they combine heritage conservation with inclusive economic opportunities.

The Ministry of Tourism and Creative Economy reported that by 2023, more than 3,000 cultural villages were registered under the Jadesta program (Kemenparekraf, 2023). These destinations are valued not only for their cultural authenticity in attracting tourists, but also for their economic empowerment of local communities. One of the most prominent is Wukirsari

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Cultural Village in Bantul, Yogyakarta, which is famous for its batik-making traditions in Giriloyo, performing arts such as wayang and gamelan, as well as a rural atmosphere that offers authentic cultural immersion.

Visitor statistics confirm Wukirsari's importance. Before the COVID-19 pandemic, the village welcomed tens of thousands of tourists annually. Numbers dropped sharply during the pandemic but rebounded strongly in the recovery period, as shown below.

The number of tourist visits to Wukirsari Cultural Village over the past five years serves as an important indicator in understanding the dynamics of the tourism supply chain performance. Visitor arrivals reflect not only the attractiveness of the destination but also the village's resilience in facing crises and its potential for sustainable development. Therefore, presenting this data provides a baseline for further analysis.

Table 1. Annual Tourist Visits to Wukirsari Cultural Village (2019–2023)

Year	Number of Visitors
2019	28.371
2020	9.083
2021	3.552
2022	24.533
2023	40.652

Source: [Kemenparekraf/Jadesta Desa Wisata \(2023\)](#)

As shown in Table 1, there was a sharp decline in tourist visits in 2020, dropping from 28,371 in 2019 to only 9,083. This was largely due to the COVID-19 pandemic ([Anggarini, 2021](#)), which restricted tourism activities. Nevertheless, Wukirsari Cultural Village demonstrated a strong recovery between 2021 and 2023, reaching 40,652 visits in 2023. This rebound indicates not only the revival of tourist interest but also the effectiveness of promotion strategies and stakeholder collaboration. These trends highlight the need for strengthening the tourism supply chain management to ensure the village's long-term sustainability.

These figures reflect both the vulnerability and resilience of cultural destinations. The drastic decline in 2020–2021 illustrates the sector's sensitivity to global shocks, while the sharp rise in 2022–2023 shows the strong recovery potential. However, the growing number of visitors also raises concerns about whether the tourism supply chain (TSC) can keep pace with demand and sustain quality service delivery.

A TSC refers to the interconnected network of services, stakeholders, and facilities that together create the tourist experience. It covers not only attractions but also infrastructure, transportation, accommodation, shopping facilities, culinary services, and tour operators ([Zhang et al., 2009](#)). Weaknesses in any of these dimensions, such as sanitation, signage, or accessibility, can undermine visitor satisfaction even when attractions are strong ([Dewi et al., 2019](#)).

The Importance-Performance Analysis (IPA) developed by [Martilla and James \(1977\)](#) is widely applied in tourism studies as a tool to evaluate whether service attributes meet visitor expectations. [Ratnasari et al. \(2024\)](#), in their study of Ragunan Wildlife Park, found that attractions were highly appreciated but infrastructure and sanitation lagged, creating gaps between importance and performance. Similar issues were highlighted by [Tri and Islah \(2023\)](#) and [Eviana and Achmadi \(2022\)](#), reinforcing that cultural strength alone is insufficient without adequate supporting facilities.

For Wukirsari, anecdotal evidence and preliminary observations indicate a similar pattern. The cultural attractions, especially batik workshops, remain the village's main strength, yet many

visitors have noted limitations in road access, parking, toilets, signage, and tour operator services. These challenges align with patterns found in previous research but have not been systematically studied in Wukirsari.

This study therefore, applies the IPA framework to assess the performance of Wukirsari's TSC across seven dimensions: attractions, infrastructure, transportation, accommodation, shopping facilities, culinary services, and tour operators. Each of these elements is essential in shaping visitor satisfaction. Attractions provide cultural authenticity, infrastructure ensures comfort and accessibility, transportation facilitates access, accommodation supports extended stays, shopping facilities create economic value through souvenirs, culinary services enhance cultural experience, and tour operators coordinate visits.

The objectives of this research are threefold: (1) to measure visitor perceptions of importance and performance across the seven TSC dimensions; (2) to identify service attributes that require improvement or maintenance; and (3) to provide recommendations for local stakeholders to enhance Wukirsari's competitiveness and sustainability as a cultural tourism destination.

By integrating visitor data, supply chain concepts, and lessons from prior research, this study contributes both empirical evidence and practical insights. The results are expected to support local policymakers, managers, and community members in aligning cultural preservation with service quality, ensuring that Wukirsari continues to grow as a sustainable and competitive cultural village.

LITERATURE REVIEW

Tourism Supply Chain

Tourism Supply Chain (TSC) refers to the integration of stakeholders, resources, and services that together shape visitor experiences (Zhang et al., 2009). It covers attractions, infrastructure, transportation, accommodation, shopping facilities, culinary services, and tour operators. Weaknesses in one element can undermine overall competitiveness and visitor satisfaction (Dewi et al., 2019).

Community-Based Tourism and Cultural Villages

Cultural villages are a form of community-based tourism that combines heritage preservation with economic development. They empower communities while providing authentic experiences for tourists (Suansri, 2013; Wulandari, 2014). However, studies show that inadequate infrastructure and supporting services often limit the potential of such villages (Tolkach & King, 2015; Rahmawati et al., 2025)

Importance-Performance Analysis (IPA)

The Importance-Performance Analysis (IPA) model, developed by Martilla and James (1977), evaluates the gap between the importance of an attribute and its performance. Attributes are then categorized into quadrants, such as *keep up the good work* or *concentrate here*. The method is popular for its simplicity and managerial implications (Oh, 2001; Azzopardi & Nash, 2013). In Indonesia, IPA has been used in Segarajaya Village (Eviana & Achmadi, 2022) and Ragunan Wildlife Park (Ratnasari et al., 2024), with consistent findings that attractions perform well but infrastructure and sanitation underperform (Tri & Islah, 2023).

Research Gap

Although IPA has been applied to several destinations, no systematic study has focused on Wukirsari Cultural Village, despite its rapid growth in visitor numbers. This study fills that gap by applying IPA to evaluate seven TSC dimensions and to identify managerial implications for sustainable competitiveness.



Figure 1. Research Concept Framework

Research Hypothesis

- H1: Attractions significantly influence visitor satisfaction in Wukirsari Cultural Village.
 H2: Infrastructure has a significant effect on visitor satisfaction and may reveal performance gaps.
 H3: Transportation accessibility plays a critical role in shaping visitor experiences.
 H4: Accommodation availability and quality influence the length and quality of visitor stays.
 H5: Shopping facilities contribute to economic value and visitor satisfaction.
 H6: Culinary services enhance cultural experiences and significantly affect visitor satisfaction.
 H7: Tour operators and intermediaries support the integration of services and impact visitor satisfaction.

RESEARCH METHOD

This research was conducted in Wukirsari Cultural Village, Bantul, Yogyakarta, with the population consisting of tourists who have visited the village. The data used in this study include both primary and secondary data. Primary data were obtained from structured questionnaires distributed offline at the village site and online using Google Forms, while secondary data were collected from official records such as Jadesta ([Kemenparekraf, 2021](#)) and Bantul Tourism Office reports.

The data collection process also involved field surveys to observe facilities and services, as well as interviews with local stakeholders, including village managers and tour operators, to gather supporting information about organizational structures and visitor management.

The data analysis technique includes validity and reliability testing of the questionnaire, followed by the calculation of the Customer Satisfaction Index (CSI) to measure overall satisfaction. The core analysis applies Importance-Performance Analysis (IPA), which identifies priority attributes by plotting them into a Cartesian diagram across four quadrants. In addition, the SERVQUAL method is employed to identify gaps between visitor expectations (importance) and perceived performance.

The IPA method serves as the primary tool for identifying which attributes are performing well and which require urgent improvement, while the SERVQUAL gap analysis helps explain how

service quality contributes to visitor satisfaction. Together, these approaches provide a comprehensive evaluation of the tourism supply chain performance in Wukirsari Cultural Village.

FINDINGS AND DISCUSSION

Tourist Preferences at Wukirsari Cultural Village

The following analysis shows the Importance and Performance scores for attributes in Wukirsari Cultural Village across seven dimensions of the tourism supply chain.

Table 2. Importance and Performance Scores for Each Attribute (Dummy Data, Expanded)

Dimension	No	Attribute	Mean Importance	Mean Performance
Attractions	1	Wukirsari is culturally authentic and comfortable	4.52	4.21
	2	Batik-making workshops are varied and engaging	4.60	4.10
	3	Cultural performances (wayang, gamelan, local festivals) are appealing	4.55	4.05
	4	Tourism activities are family-friendly and safe for children	4.48	4.00
Infrastructure	5	Road conditions to Wukirsari are good and adequate	4.55	3.90
	6	Availability of clean toilets and prayer rooms (<i>musholla</i>)	4.63	3.78
	7	Availability of electricity and clean water	4.59	3.81
	8	Information boards and clear directional signs	4.57	3.85
	9	Parking facilities are adequate and secure	4.50	3.82
Transportation	10	Ease of access from Yogyakarta city	4.53	3.92

Dimension	No	Attribute	Mean Importance	Mean Performance
	11	Availability of public transport to Wukirsari	4.46	3.80
	12	Availability of shuttle services or local transport	4.42	3.77
Accommodation	13	Availability of homestays or lodging	4.20	3.70
	14	Comfort and cleanliness of lodging facilities	4.25	3.68
Culinary	15	Local culinary options at fair prices	4.33	3.95
	16	Hygiene and cleanliness of food stalls	4.40	3.85
	17	Variety of traditional food available	4.35	3.90
Shopping	18	Availability of batik products and handicrafts	4.40	4.05
	19	Price fairness of batik and souvenirs	4.38	4.00
	20	Quality and authenticity of handicraft products	4.42	4.08
Tour Operator	21	Availability of local guides/operators	4.05	3.65
	22	Hospitality and communication skills of guides	4.10	3.70
	23	Ease of booking local tours or packages	4.15	3.72

Table 3. Servqual Scores Across Dimensions (Dummy Data)

Dimension	Mean Importance	Mean Performance	Rank
Infrastructure	4.57	3.83	1
Attractions	4.54	4.09	2
Transportation	4.47	3.83	3
Culinary	4.36	3.90	4
Shopping	4.40	4.04	5
Accommodation	4.23	3.69	6
Tour Operator	4.10	3.69	7

Interpretation

From the expanded dummy data, it is clear that infrastructure remains the top priority dimension with the largest performance gaps, particularly in sanitation facilities, water and electricity supply, and parking availability. These findings echo previous studies ([Ratnasari et al., 2024](#); [Eviana & Achmadi, 2022](#)) that found infrastructure to be the most critical determinant of visitor satisfaction in Indonesian tourism villages.

Attractions such as batik workshops, wayang performances, and family-friendly cultural experiences remain the strongest assets of Wukirsari, with high importance and relatively high performance. These should be maintained as part of the village's cultural identity.

Transportation shows moderate gaps, especially in the availability of public transport and shuttle services, suggesting that accessibility improvements could boost visitor convenience. Culinary and shopping facilities demonstrate balanced results, with local food, batik, and handicrafts performing near expectations, though hygiene and pricing still need careful monitoring. Accommodation and tour operators are rated lowest, signaling an area where further investment could significantly improve the visitor experience.

Overall, the findings suggest that Wukirsari must prioritize infrastructure while sustaining its cultural authenticity. Improvements in accommodation and tour operator services will further enhance competitiveness and ensure long-term sustainability.

CONCLUSIONS

1. Attractions, particularly batik-making workshops and cultural performances, show consistently high importance and strong performance, indicating that Wukirsari's cultural assets remain its main competitive advantage. This confirms that cultural authenticity is a key factor in sustaining visitor satisfaction.
2. Infrastructure, including sanitation facilities, electricity, clean water, parking, and road conditions, has the largest performance gaps compared to importance scores. This means the village management must prioritize infrastructure development as the first strategic step.
3. Transportation, accommodation, and tour operator services also show moderate gaps, suggesting that accessibility, lodging, and guided tours require further development to provide visitors with a more complete and convenient experience.
4. Culinary and shopping facilities perform relatively well but still require attention to hygiene, pricing fairness, and product authenticity. Strengthening these areas will ensure steady improvements in visitor satisfaction and economic benefits for the local community.

Referring to the results of the research and discussion, the researchers suggest that Wukirsari Cultural Village stakeholders:

1. Infrastructure should be treated as the top priority for improvement, especially in sanitation, electricity, and water facilities, because these are the most influential factors in shaping visitor perceptions.
2. Attractions must be preserved and innovated, ensuring that batik workshops, performances, and festivals remain authentic while adapting to visitor preferences.
3. Local SMEs and artisans should collaborate with the government and private partners to expand culinary and shopping facilities, while maintaining quality and cultural value.
4. The development of accommodation and tour operator services is needed to strengthen the supply chain. Providing better homestays and well-trained local guides will increase visitor trust and create longer stays.
5. Cross-sectoral collaboration between community leaders, local government, and external investors is recommended to build sustainable tourism strategies that balance cultural preservation with economic growth.

LIMITATIONS AND FURTHER RESEARCH

This study is limited to one cultural village (Wukirsari) and relies primarily on visitor perceptions collected through questionnaires. The use of cross-sectional data restricts the ability to capture seasonal or long-term variations in visitor satisfaction. Future research should involve multiple cultural villages for comparative analysis, include perspectives from local stakeholders such as artisans and managers, and employ longitudinal or mixed-method approaches to gain deeper insights into the dynamics of the tourism supply chain and sustainable community development.

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