Stakeholder synergy in developing sustainable gastro-tourism port destinations: Evidence from Probolinggo City

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ABSTRACT

This study explores the development of sustainable gastro-tourism in port destinations, focusing on the synergy among various stakeholders in Probolinggo City. While Probolinggo is a strategic transit port for international cruise ships, a significant market gap exists; organized tours primarily direct passengers to external natural attractions, leaving limited economic benefits for the local city center. To address this issue, the research aims to analyze the potential of traditional culinary tourism and formulate a strategic implementation model that diversifies local tourism and ensures equitable economic distribution. Utilizing a qualitative descriptive approach, the study analyzes cruise visitation data from 2020 to 2025 alongside literature synthesis. The findings indicate that time-constrained cruise passengers present a substantial target market for short, authentic urban experiences. Local traditional cuisine, such as Nasi Jagung, processed mango products, and market snacks, offers the ideal authenticity and flexibility required for these brief transit visits. Furthermore, the study proposes the "Probolinggo Food Festival" model as a concrete collaborative solution. The success of this model heavily depends on strong stakeholder synergy, integrating government-supported culinary hubs, active local SME partnerships, traditional transport integration, and strategic marketing by ground tour agents. Ultimately, fostering these collaborative networks not only fills the existing market void but also transforms the port area into a sustainable, gastronomically rich destination that directly empowers the local community.

1. INTRODUCTION

The global cruise industry has emerged as a rapidly growing tourism segment, significantly impacting transit ports across Southeast Asia, including Indonesia (Nugraha, 2016; Hutama et al., 2026). Probolinggo City, located in East Java, serves as one of Indonesia's key transit ports and has experienced a steady increase in cruise ship calls since

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2011 (Hutama & Negoro, 2020). This continuous influx of international vessels positions the city as a strategic gateway with substantial potential for cultural, leisure, and shopping tourism.

Despite this potential, a critical market gap exists regarding the distribution of tourist activity upon disembarkation. Visit data reveals a stark disparity: organized tours predominantly direct passengers to Mount Bromo, an iconic external natural attraction, rather than destinations within the city (Meitasari et al., 2023). Consequently, participation in the organized Probolinggo city tour is minimal, and many passengers choose to travel independently, leaving a significant market void in the urban center (Fattah et al., 2020). The combination of the tourists' out-of-city focus, and their limited visit time prevents the optimal spread of economic benefits, resulting in an uneven distribution of welfare among the local community (Novesar & Hafid, 2024).

To address these socio-economic challenges and leverage the momentum of cruise tourism, there is an urgent need to develop brief, unique, and culturally immersive tourism products within the city (Baker & Ramaprasad, 2018; Navarro-Ruiz et al., 2020). Traditional culinary-based gastro-tourism presents an optimal solution. Because cruise visitors operate under severe time constraints, typically having an average layover of only four to five hours, they require intense and efficiently consumable experiences (Navarro-Ruiz et al., 2020). Probolinggo's local traditional cuisine, such as *Nasi Jagung*, processed mango products, and market snacks like *Lupis* and *Nogosari*, offers the ideal authenticity and flexibility required to satisfy these short transit visits (Hutama et al., 2026).

Crucially, transforming this culinary potential into a sustainable port destination requires strategic collaboration among diverse actors. The successful implementation of such urban tourism heavily depends on strong stakeholder synergy (Wijaya et al., 2025). As a concrete collaborative solution, this study proposes the "Probolinggo Food Walk" model. The viability of this 2–3-hour culinary package relies on the integration of government-supported, international-standard culinary hubs, active partnerships with local Small and Medium Enterprises (SMEs), the involvement of traditional transportation sectors, and strategic marketing integration by ground tour agents. Therefore, this research aims to explore the synergy among these stakeholders, analyze the potential of traditional culinary tourism, and formulate an implementation model that diversifies local tourism, ensures equitable economic distribution, and transforms Probolinggo into a sustainable gastro-tourism destination.

2. METHODOLOGY

This study employs a qualitative descriptive approach to explore the development of sustainable gastro-tourism and analyze the necessary stakeholder synergy in Probolinggo City. The descriptive method is highly appropriate as the research focuses on three primary objectives: (1) accurately describing the situation and patterns of cruise passenger visits to

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identify existing market gaps; (2) presenting and reviewing theoretical concepts related to gastro-tourism, cruise passenger behavior, and collaborative tourism implementation; and (3) developing a robust conceptual framework and implementation strategy, such as the "Probolinggo Food Festival", based on the integration of relevant empirical data and theory.

The research relies predominantly on a combination of credible secondary data sources and literature synthesis. The core quantitative data comprises the Probolinggo City Cruise Ship Visit Data spanning from 2020 to 2025, which was sourced from official city government reports. This dataset provides essential information regarding the total number of cruise ships visiting, passenger and crew capacities, and the comparative distribution of tourists routed to external natural attractions (Mount Bromo) versus those participating in the organized City Tour or traveling independently. Additionally, the study utilizes previous academic articles and scientific literature to provide contextual data on pre-existing socio-economic issues - particularly concerning limited tourist expenditure and uneven distribution of benefits - and to build the theoretical foundation for gastro-tourism. The formulation of the culinary strategy also references field data obtained through the non-participatory observation of potential traditional Probolinggo culinary items suitable for package development.

To process the collected information, the study applies distinct data analysis techniques tailored to the specific types of data. A quantitative descriptive analysis is applied to the cruise ship visitation data to calculate frequencies, percentages, and year-to-year visit trends. The primary focus of this quantitative process is a gap analysis, which empirically demonstrates the urgent need for an innovative urban tourism product by comparing the proportion of passengers drawn to external attractions against those remaining in the city. Furthermore, content analysis and literature synthesis are utilized to examine socio-economic challenges and construct an ideal conceptual framework for gastro-tourism. By integrating these synthesized literature findings with empirical data on visitation gaps, the study systematically formulates an evidence-based implementation model that emphasizes strong stakeholder synergy, integrating government-supported hubs, local SME partnerships, traditional transport, and ground tour agents - to establish a sustainable and equitable port destination.

3. RESULTS AND DISCUSSION

Identifying the Market Gap in Cruise Tourism Visitation

An analysis of cruise ship visitation data in Probolinggo City from 2020 through 2025 projections indicates a strong recovery phase post-pandemic, confirming the city's consistent position on international cruise itineraries. However, a critical disparity is evident in how passengers select their organized tours, highlighting a significant market gap in urban tourism. For instance, during a 2024 visit by the MS. Noordam, 282 passengers were routed to the

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external natural attraction of Mount Bromo, while only 216 participated in organized Probolinggo City Tours.



Figure 1. Cruise Timetables to Probolinggo
Source: Hutama, et al. (2026)

Crucially, the largest demographic, 1,110 disembarking passengers from the same ship, chose to travel independently without an assigned tour. This massive, unassigned segment reveals that a large portion of tourists opt out of existing pre-packaged tours, presenting an ideal target market seeking flexible, authentic local experiences that current city products fail to facilitate (Abeal-Vázquez et al., 2024). Addressing this market void requires time-efficient and culturally authentic tourism products tailored to the severe time constraints (typically a 4–5-hour layover) of cruise passengers.

Table 1. Comparison of Organized Tour Selections by Cruise Passengers

Ship Name	Total Disembarking Passengers	Tour to Bromo	Organized Probolinggo City Tour	Independent (Unassigned)
MS. Europa (Jan 2024)	157	0	143	14
MS. Noordam (Dec 2024)	1.608	282	216	1.11
Total Sample Visits	**1.765**	**282**	**359**	**1.124**

Source: Probolinggo City Government (2025), Hutama et al. (2026)

Table 2. Summarizes the Recovery Trend and the Type of Cruise Activity

Year	Number of Calls (Year-End/Projection)	Estimated Ship Capacity (Total)	Key Notes
2023	8 Calls (Jan–Apr)	6,300 Passengers	Active resumption of visits, dominated by both large ships (Westerdam) and small/expedition vessels (Le Laperouse).
2024	3 Calls (Jan–Dec)	2,500 Passengers	Fewer calls but includes large (MS. Noordam) and medium ships, demonstrating operator commitment.
2025	10 Calls (Projection)	1,800 Passengers	Trend resumes increase, focused on smaller capacity luxury/expedition ships (Le Laperouse, The World).

Source: Probolinggo City Government (2025), Hutama et al. (2026)

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The Potential of Traditional Cuisine for Authentic Urban Experiences

To capture this unassigned market and diversify local tourism, Probolinggo City's traditional cuisine, a unique blend of Javanese and Madurese cultures, holds immense potential as a sustainable gastro-tourism attraction. The culinary assets suitable for short transit visits can be divided into two main categories:

a. Quick-Serve Snacks: Market delicacies such as *kukis*, *lapis*, *lupis*, *nogosari*, and *onde-onde* are highly portable and quick to consume, fitting perfectly within a 2–3-hour tour window. Items like *lupis* (served with liquid palm sugar) provide strong traditional flavors, while *lapis* and *kukis* serve as easy-to-carry culinary souvenirs.



Figure 2. Sampling Traditional Food Probolinggo
Source: Hutama et al. (2026)

b. Signature Main Dishes: Local staples like *Nasi Jagung* (a carbohydrate alternative served with salted fish and *urap*) and *Soto Probolinggo* offer profound cultural narratives and authentic tastes. Additionally, processed mango products, representing a Geographical Indicator of Probolinggo, provide premium souvenir options that enhance destination branding.

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Table 3. Analysis of Potential and Suitability of Probolinggo's Signature Dishes for the Cruise Passenger Segment

Recommended Signature Cuisine	Characteristics and Uniqueness	Suitability for Cruise Tourism
Nasi Jagung (Nasi Empok)	A staple food of the local community, offering a carbohydrate alternative to white rice. Often served with salted fish, urap (mixed vegetables), and sambal terasi.	Offers high authenticity and a strong cultural narrative (traditional rural food). Best served in small sampler portions for tasting.
Soto Probolinggo/Rawon	Thick broth (soto) or dark broth (rawon) dishes. Provides a savory and warming taste experience.	Suitable for tourists seeking a substantial meal before returning to the ship, provided the serving location ensures high hygiene and fast service.
Processed Mango Products	Probolinggo is renowned as a center for mangoes, especially the Manalagi and Arumanis varieties. Processed products include candied mangoes, chips, or fresh juice.	Represents a Geographical Indicator (GI) of Probolinggo. These products possess strong branding and are easily marketed as premium souvenirs.

Source: Hutama et al. (2026)

The "Probolinggo Food Festival": A Collaborative Implementation Model

To efficiently package this culinary potential, this study proposes the "Probolinggo Food Festival" model, designed to deliver an intense authentic local taste and cultural narrative within a maximum duration of 3 hours. The tour utilizes a sampler-size approach, offering small tasting portions of dishes like *Nasi Jagung* alongside traditional snacks, allowing tourists to experience diverse flavors without feeling overly full.



Figure 3. Cruise Tourists Sampling for Probolinggo's Local Cuisines
Source: Hutama et al. (2026)

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This core product is supplemented by secondary developments, including premium culinary souvenirs and 15-20 minutes mini culinary workshops held at local enterprise centers. This approach transforms the previously perceived constraint of limited layover time into a competitive advantage by offering an experience-rich culinary package.

Fostering Stakeholder Synergy for Sustainable Gastro-Tourism

The success of the "Probolinggo' s Food Festival" direct front of Probolinggo Museum, it's a model heavily depends on robust stakeholder synergy to ensure service quality meets international standards and that economic benefits are equitably distributed. The required collaborative network includes:

a. Government and Infrastructure Support: The local government must establish one or two hygienic in Probolinggo Museum, an international-standard Culinary Hubs with air conditioning and proper restroom facilities to meet cruise passenger comfort standards. Furthermore, government agencies must provide human resource training for tour guides and vendors on food safety, hygiene, and basic English skills.
b. Local SME Partnerships: Developing gastro-tourism must actively involve local Small and Medium Enterprises (SMEs). By curating partnerships with SMEs that produce traditional snacks and signature dishes, the model guarantees authentic experiences while directly empowering the grassroots economy and creating job opportunities.
c. Traditional Transport Integration: Stakeholder synergy must extend to the local transportation sector by integrating standardized traditional transport (e.g., *becak* or mini A/C vehicles) into the short food walk route. This ensures transportation becomes an experiential part of the tour while boosting income for part-time transport workers.
d. Strategic Marketing by Ground Tour Agents: Private sector collaboration is essential for market penetration. Local ground agents should formally integrate this culinary package into official shore excursions promoted directly onboard the ships. Simultaneously, establishing clear Information and Ticket Sales Points at the port's arrival area is critical to capturing the massive segment of independent tourists, directing their spending toward the local urban center rather than external attractions.

Ultimately, this synergistic approach shifts a portion of tourist expenditure away from centralized external destinations and directly toward the local culinary ecosystem, fulfilling the core objectives of sustainable and equitable tourism development (Atoche-Silva et al., 2024; Nomishan et al., 2024).

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4. CONCLUSION

This study concludes that transforming Probolinggo City into a sustainable gastro-tourism port destination requires a strategic shift to address the existing market gap in cruise passenger visitations. While the city is a prominent transit port, the tendency to direct passengers toward external natural attractions has historically limited the economic benefits distributed within the local city center. The research identifies that time-constrained cruise passengers, particularly the large segment of independent and unassigned travelers, present a highly viable target market for short, authentic urban experiences. Probolinggo's traditional culinary assets - such as Nasi Jagung, premium processed mango products, and authentic market snacks like lupis, nogosari, and onde-onde - provide the ideal flexibility and cultural immersion required for these brief 4–5-hour transit visits.

To effectively harness this potential, this study proposes the "Probolinggo Food Walk" as a concrete implementation model. However, the successful execution of this model is fundamentally dependent on robust stakeholder synergy. A collaborative ecosystem must be established, integrating local government support to build international-standard Culinary Hubs, active partnerships with local SMEs to guarantee authentic food supply, the incorporation of traditional transport for a cohesive cultural experience, and strategic marketing integration by ground tour agents. Ultimately, fostering this strong collaborative network among stakeholders will successfully fill the urban market void, diversify local tourism, and establish Probolinggo as a sustainable gastro-tourism destination that equitably distributes economic benefits and empowers the local community.

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