

Competitiveness in Sustainable Gastronomic Tourism: Integration of Environmental Practices in Latin American Destinations

Roger Badin Paredes Guerrero¹, Noemi Emperatriz Cayo-Velásquez²,
Gladys Marleny Auquitias-Condori³, Alma R. Bojórquez-Vargas⁴

¹Universidad Nacional de Chimborazo, roger.paredes@unach.edu.ec

²Universidad Nacional del Altiplano, Puno - Puno, Perú, noemicayo@unap.edu.pe

³Universidad Nacional del Juliaca, Perú, gauquitias@unap.pe

⁴Universidad Autónoma de San Luis Potosí, alma.bojorquez@uaslp.mx

Abstract

This study explores how the integration of environmental practices in gastronomic tourism can increase the competitiveness of tourist destinations in Latin America. Through the analysis of cases in Mexico, Peru and Colombia, sustainable strategies are identified, such as the use of local products and the reduction of waste, which not only contribute to sustainable tourism development, but also improve the image and attractiveness of destinations. The results show that destinations that implement sustainable environmental practices are perceived as more attractive and competitive in a tourism market that is increasingly aware of ecological impacts.

Keywords: competitiveness, gastronomic tourism, environmental sustainability, Latin America, tourism development, sustainable practices.

1. Introduction

In recent decades, tourism has evolved significantly, highlighting the role that gastronomic experiences play in the choice of tourist destinations. This trend has led to the emergence of gastronomic tourism, a modality that not only focuses on the culinary offer of a place, but also on the valorization of local culture and traditions through its gastronomy (González-Sánchez & Sánchez-Torres, 2021). Within this context, Latin America has emerged as a key region, due to its rich cultural diversity and a culinary heritage that combines indigenous, African, and European influences.

As tourists become more aware of the social and environmental impacts of their travels, the demand for sustainable practices in the tourism sector has grown exponentially. Environmental sustainability has become a critical aspect to improve the competitiveness of tourist destinations,

as many travelers seek experiences that minimize their impact on the natural environment (Rubio et al., 2021). In this context, tourist destinations have begun to integrate sustainable practices into their gastronomic offerings, promoting the use of local products, the reduction of food waste and the conservation of natural resources (García-Henche & Blasco-López, 2020).

The relationship between competitiveness and sustainability in gastronomic tourism is particularly relevant in Latin America, where many destinations face the challenge of balancing tourism growth with the conservation of their natural environment. The integration of sustainable practices not only contributes to environmental protection, but also improves the perception of destinations among tourists, which increases their competitiveness in an increasingly demanding global tourism market (Jiménez-Beltrán et al., 2020).

This study seeks to explore how the integration of sustainable practices in gastronomic tourism can strengthen the competitiveness of tourist destinations in Latin America. To this end, three case studies will be analyzed: Mexico City, Cusco and Cartagena, cities that have successfully implemented strategies that combine sustainability with gastronomic offerings. These cities represent clear examples of how destinations can differentiate themselves in the competitive tourism market by adopting practices that respect both the environment and cultural traditions.

Sustainability has also become a competitive necessity for destinations that rely on gastronomy as their main tourist attraction. As tourist expectations evolve, innovation in sustainability becomes a key differentiator for destinations looking to stay competitive. In addition, the adoption of sustainable practices not only improves the tourist experience, but also has a positive impact on local communities, fostering economic development and the protection of natural resources (Castellanos-Verdugo et al., 2022).

Therefore, this research focuses on answering the following questions: How does sustainability influence the competitiveness of tourist destinations? What specific sustainability practices are being implemented in Latin American gastronomic destinations? And, finally, what impact do these practices have on the perception of tourists and on local development? These questions are crucial to understanding how gastronomic tourism can contribute to sustainable development in the region.

2. Theoretical Framework

Gastronomy tourism is a growing segment within the tourism industry, and its relevance in Latin American tourist destinations is increasing. This type of tourism is not only based on the enjoyment of local food, but also promotes knowledge of the culture and culinary history of a region. Gastronomy as a tourist attraction has proven to be a key economic driver for many communities, as it fosters job creation and the promotion of local products (García-Henche & Blasco-López, 2020). However, for a destination to be competitive, it is essential that it integrates environmental sustainability practices that differentiate it from other destinations.

Competitiveness in Gastronomic Tourism

Competitiveness in gastronomic tourism refers to the ability of a tourist destination to attract visitors by offering unique and high-quality culinary experiences. Destinations that manage to differentiate themselves through their gastronomy are usually those that stand out for the authenticity of their products and services, as well as for the innovation in the presentation of their experiences (Rubio et al., 2021). In this sense, sustainability is a key factor that can improve the competitiveness of a destination, as tourists are increasingly aware of the importance of consuming organic products and supporting environmentally responsible practices.

According to recent studies, destinations that integrate sustainability practices into their gastronomic offer have a greater capacity to attract high-value tourists, who are willing to pay more for authentic and sustainable experiences (Jiménez-Beltrán et al., 2020). This trend has driven the need for tourist destinations to adopt a holistic approach that combines gastronomy with environmental sustainability.

Table 1. Factors influencing the competitiveness of gastronomic destinations

Factor	Impact on competitiveness
Authenticity of the gastronomy	High
Local Product Integration	High
Innovation in the tourist experience	Middle
Environmental sustainability	High

Source: Authors' elaboration based on data from Jiménez-Beltrán et al. (2020) and Rubio et al. (2021).

Environmental Sustainability and Gastronomic Tourism

Environmental sustainability is a crucial component in modern tourism, particularly in gastronomic tourism. Destinations that integrate sustainable practices, such as the use of local and ecological ingredients, the reduction of waste and the minimization of their carbon footprint, not only protect the environment, but also improve their image in the eyes of tourists (González-Sánchez & Sánchez-Torres, 2021). Sustainable gastronomy promotes the consumption of food that is grown and produced locally, which reduces dependence on imported inputs and decreases the environmental impact of food transport and distribution.

According to studies, sustainable gastronomic tourism also has a positive effect on local economies, as it encourages job creation and the promotion of products from small and medium-sized enterprises (Castellanos-Verdugo et al., 2022). In addition, tourists who participate in sustainable dining experiences tend to show greater loyalty to destinations and recommend these places to other travelers.

Table 2. Sustainable practices in gastronomic tourism

Sustainable practice	Impact on the destination
Use of local products	Reducing the carbon footprint
Waste reduction	Increased efficiency in operation
Promotion of local cuisine	Enhancement of local culture
Renewable energies in the restaurant industry	Minimization of environmental impact

Source: Authors' elaboration based on data from Castellanos-Verdugo et al. (2022).

Integrating Sustainability into Competitiveness

The integration of sustainable practices into the gastronomic offer has a direct impact on the competitiveness of tourist destinations. Destinations that have adopted a sustainable approach to their gastronomic services and products have not only improved their reputation, but have also seen an increase in tourist satisfaction and greater visitor retention (Rubio et al., 2021). In this sense, sustainability has become a key competitive differentiator for destinations seeking to attract a more demanding and responsible audience.

According to González-Sánchez and Sánchez-Torres (2021), destinations that promote sustainability practices in their gastronomy have a significant competitive advantage in the tourism market, as consumers prefer authentic experiences that are aligned with their values of conservation and respect for the environment. This is reflected in the increase in recommendations and the high ratings that these destinations receive on travel platforms.

Table 3. Benefits of sustainability in tourism competitiveness

Benefit	Impact
Improved destination image	High
Increase in tourist satisfaction	High
Increased customer loyalty	Middle
Positive recommendations	High

Source: Authors' elaboration based on data from González-Sánchez & Sánchez-Torres (2021) and Rubio et al. (2021).

3. Methodology

Research Focus

This study uses a qualitative and descriptive approach, based on the collection and analysis of case studies in gastronomic tourist destinations in Latin America. The choice of the qualitative approach is justified by the need to explore how destinations integrate environmental sustainability practices and how these influence their competitiveness. Through this method, it is intended to understand the phenomenon in its natural context, facilitating a detailed analysis of the factors that influence the relationship between sustainability and gastronomic tourism (Creswell, 2018).

The case study analysis focuses on three emblematic destinations in Latin America: Mexico City, Mexico, Cusco, Peru, and Cartagena, Colombia, which have implemented sustainable practices in their gastronomic activities with the aim of improving their competitiveness in the tourism market. These destinations were selected for their international recognition in the field of gastronomic tourism and for their commitment to sustainability (Jiménez-Beltrán et al., 2020; Castellanos-Verdugo et al., 2022).

Research Design

The research was carried out in three phases:

1. Literature review: An exhaustive review of academic literature on gastronomic tourism, environmental sustainability and tourism competitiveness was carried out. Previous studies exploring the relationship between sustainability and gastronomic tourism were analyzed, with a focus on Latin America, using academic databases such as Scopus, Google Scholar, and JSTOR to identify the most recent and relevant publications (Rubio et al., 2021).
2. Selection of case studies: Three tourist destinations recognized for their gastronomic offer and their commitment to sustainability were selected. The selected destinations were evaluated based on the implementation of sustainable practices and their impact on competitiveness. Tourism relevance, innovation in sustainability and availability of data were used as criteria.
3. Qualitative Data Analysis: Thematic analysis was employed to identify patterns and key themes that emerged from the data collected. This method allowed the data to be organized into categories related to the sustainable practices adopted, their impact on competitiveness and the perception of tourists (Braun & Clarke, 2006). The thematic analysis was complemented by an inductive approach to uncover connections between sustainable strategies and competitiveness outcomes.

Data Collection

Data collection was done through secondary sources, including:

1. Tourism and economic reports: Reports on the tourism and gastronomy industry in the three selected destinations were reviewed, providing key information on the adoption of sustainable practices and their impact on tourist attraction and the local economy (González-Sánchez & Sánchez-Torres, 2021).
2. Semi-structured interviews: Interviews were conducted with those responsible for the tourism and gastronomy sector in the selected destinations, with the aim of obtaining qualitative data on the sustainability strategies implemented and the challenges they face (Jiménez-Beltrán et al., 2020). The interviews also included questions about the impact of these strategies on the perception of tourists and on the competitiveness of the destination.
3. Review of sustainability studies: Academic studies on sustainability in the tourism sector in Latin America were analyzed, which allowed a better understanding of the dynamics between sustainable practices and competitiveness in gastronomic destinations.

Analysis Tools

The analysis of the qualitative data was carried out using NVivo software, which facilitated the organization and coding of the data obtained from the interviews and the reviewed reports. The interviews were transcribed and analyzed by coding recurring themes, such as the use of local products, waste reduction, and the promotion of sustainable practices in catering. Patterns were identified among the selected destinations that allowed for meaningful comparisons (Creswell, 2018).

Table 4. Data sources and collection methods

Data Source	Collection Method
Tourist information	Document Review
Interviews with managers	Semi-structured interviews
Academic studies on sustainability	Literature review

Case Studies

1. Mexico City, Mexico: This destination stands out for the implementation of sustainable practices in its markets and restaurants, including the reduction of waste and the use of local and organic ingredients. Sustainable gastronomy is a key pillar in its tourism strategy, and its competitiveness has increased due to the growing demand for authentic and responsible experiences (Sánchez-Sánchez et al., 2020).
2. Cusco, Peru: In Cusco, traditional Andean cuisine has been promoted, based on the use of local and ecological products. This destination has integrated environmental sustainability into its gastronomic activities, revaluing local culture and promoting competitiveness through responsible tourism (Jiménez-Beltrán et al., 2020).
3. Cartagena, Colombia: Cartagena has developed a strategy based on sustainable fishing and the conservation of marine ecosystems, which has attracted tourists interested in coastal gastronomy and ecotourism. This strategy has been key to increasing their competitiveness in the international market (Castellanos-Verdugo et al., 2022).

Table 5. Selected destinations and sustainable practices

Destiny	Outstanding sustainable practice	Impact on competitiveness
Mexico City	Reducing food waste	Increased international demand
Cusco	Use of local and organic products	Enhancement of local culture
Cartagena	Sustainable Fisheries and Marine Conservation	Attraction of eco-tourists

4. Results

The results obtained from the analysis of the three case studies (Mexico City, Cusco and Cartagena) reveal that the integration of sustainable practices in gastronomic tourism has generated a positive impact both on the competitiveness of destinations and on tourist satisfaction. The most significant findings are detailed below:

1. Mexico City, Mexico

Mexico City has implemented several sustainable strategies in the gastronomic sector, with special emphasis on the reduction of food waste and the use of local and organic products. In the city's markets and restaurants, a 35% decrease in food waste was observed following the implementation of these practices, which has improved operational efficiency and reduced costs (Sánchez-Sánchez et al., 2020). In addition, the use of biodegradable packaging and education on sustainability for both consumers and workers in the sector have been promoted.

Table 6. Impact of sustainable practices on Mexico City's competitiveness

Indicator	Before sustainability	After sustainability
Food waste	20%	13%
Use of local products	45%	70%
Tourist satisfaction (1-5)	3.8	4.5

The data also shows that 70% of restaurants in Mexico City now employ local ingredients, which has improved the perception of authenticity among tourists and increased the destination's appeal as a sustainable gastronomic hub (Sánchez-Sánchez et al., 2020).

2. Cusco, Peru

In Cusco, gastronomic tourism has been closely linked to the promotion of traditional Andean cuisine, where the use of indigenous ingredients and the conservation of ancestral culinary techniques has been key. Local communities have benefited from the growing demand for products such as quinoa, native potatoes and purple corn, which has boosted the regional economy. The impact of sustainable practices in Cusco has been reflected in a 40% increase in the use of local products, and an improvement in tourists' perception of the authenticity of the gastronomic experience (Jiménez-Beltrán et al., 2020).

Table 7. Impact of sustainability in Cusco

Indicator	Before sustainability	After sustainability
Use of local products	50%	70%
Tourist satisfaction (1-5)	4.2	4.8
Local employment in the agricultural sector	30%	45%

In addition, collaboration between tour operators and farming communities has generated new employment opportunities for local farmers, increasing their share of the gastronomic tourism value chain by 15% (Jiménez-Beltrán et al., 2020).

3. Cartagena, Colombia

In Cartagena, sustainable fishing policies have been a central component of sustainability strategies in gastronomic tourism. The protection of marine resources has allowed not only the conservation of the ecosystem, but also the promotion of coastal gastronomy based on fresh and sustainable products. Thanks to these measures, the demand for sustainable seafood has grown by 25%, and more than 65% of restaurants in Cartagena now source their seafood from responsible sources (Castellanos-Verdugo et al., 2022).

Table 8. Impact of sustainable fishing in Cartagena

Indicator	Before sustainability	After sustainability
Use of sustainable marine products	40%	65%
Tourist satisfaction (1-5)	4.0	4.6
Conservation of marine resources	-	+20%

The level of satisfaction of tourists in Cartagena has also improved significantly, with an increase in the rating of the gastronomic experience from 4.0 to 4.6 on a scale of 1 to 5, due to the authenticity and sustainability of the gastronomic offer.

The results of this study show that the integration of sustainable practices in gastronomic tourism has a direct impact on the competitiveness of tourist destinations. In the three case studies (Mexico City, Cusco and Cartagena), a substantial improvement was observed in the perception of tourists, as well as in the operational efficiency of restaurants and in the economic development of local communities. Destinations that have adopted sustainable practices, such as the use of local products, waste reduction and sustainable fishing, have managed to increase their attractiveness in the tourism market, differentiating themselves as responsible and authentic destinations.

These findings suggest that tourism destinations in Latin America that want to improve their competitiveness should prioritize environmental sustainability as an integral part of their tourism development strategy. Policies that promote collaboration between the tourism sector and local communities, as well as the conservation of natural resources, will be essential to ensure the long-term success of gastronomy tourism.

5. Conclusions

This study has shown that the integration of environmental sustainability practices in gastronomic tourism has a significant impact on the competitiveness of tourist destinations in Latin America. The results obtained from the three case studies (Mexico City, Cusco and Cartagena) indicate that sustainable practices not only improve the perception of authenticity and responsibility of destinations, but also positively influence tourist satisfaction, local economic development and environmental conservation.

1. Impact on competitiveness

The adoption of sustainable practices has proven to be a key factor in the competitiveness of tourist destinations. In Mexico City, Cusco and Cartagena, the destinations that implemented measures such as the use of local products, the reduction of waste and the promotion of ecological practices, managed to stand out in the global tourism market. Tourists increasingly value sustainability in their travel decisions, and destinations that have been able to respond to this demand have experienced an increase in the influx of visitors (González-Sánchez & Sánchez-Torres, 2021). In addition, destinations that position themselves as environmentally responsible tend to generate greater loyalty among tourists, who are willing to recommend these experiences to other travelers.

2. Tourist satisfaction

One of the most important findings is the increase in tourist satisfaction in destinations that have adopted sustainable practices. Data shows that tourists are not only looking for quality culinary experiences, but also experiences that are consistent with their environmental values. Destinations that promote the use of local and ecological products, such as Cusco, have achieved higher visitor satisfaction, with average ratings increasing from 4.2 to 4.8 (Jiménez-Beltrán et al., 2020). This change in tourist preferences reflects a growing trend towards responsible consumption and the appreciation of experiences that combine gastronomy and sustainability.

3. Economic development and sustainability

In addition to the impact on competitiveness, sustainability in gastronomic tourism has a direct effect on local economic development. Destinations that encourage the use of local and organic products support local farmers and producers, contributing to job creation and strengthening regional economies (Rubio et al., 2021). In Cusco, for example, the 40% increase in the use of local products has not only improved the authenticity of the dining experience, but has also generated more opportunities for the rural communities that supply these products (Jiménez-Beltrán et al., 2020). Similarly, in Cartagena, the promotion of sustainable fishing has contributed to the protection of marine resources and the development of the local fishing industry (Castellanos-Verdugo et al., 2022).

4. Environmental Conservation

Another key aspect is the positive impact of these practices on environmental conservation. In Cartagena, for example, the implementation of sustainable fishing policies has resulted in greater protection of marine ecosystems, which not only benefits the environment, but also improves the supply of fresh and sustainable products in local gastronomy (Castellanos-Verdugo et al., 2022). Similarly, in Mexico City, the reduction of food waste has improved operational efficiency in restaurants and significantly reduced the city's carbon footprint (Sánchez-Sánchez et al., 2020).

5. Challenges and opportunities

Despite the clear benefits of integrating sustainable practices into gastronomy tourism, there are still challenges that destinations must overcome. Technological limitations and lack of resources can hinder the adoption of these practices, especially in rural communities and small businesses in the gastronomic sector (García-Henche & Blasco-López, 2020). However, the case studies also show that investment in sustainability education and training, for both tour operators and consumers, is a critical tool to overcome these challenges.

6. Recommendations for future developments

In light of these results, it is recommended that tourism destinations in Latin America continue to promote the integration of sustainable practices in gastronomic tourism as a key strategy to increase their competitiveness. Public policies should focus on fostering collaboration between the tourism, gastronomy and agricultural sectors, ensuring that local communities benefit economically and that natural resources are protected. In addition, it is crucial that destinations continue to invest in sustainable infrastructure and environmental education for both tourists and tour operators.

Finally, future research could further explore the long-term impact of sustainable practices on the competitiveness of tourism destinations and on the well-being of local communities. It would also be valuable to look at how tourism destinations can effectively measure the return on investment in sustainability to maximize both environmental and economic benefits.

WORKS CITED

- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101. <https://doi.org/10.1191/1478088706qp063oa>
- Castellanos-Verdugo, M., Oviedo-García, M. Á., & Vera-Gil, L. (2022). Sustainable tourism practices in Latin America: The role of gastronomy and culture. *Journal of Sustainable Tourism*, 30(5), 987-1003. <https://doi.org/10.1080/09669582.2021.2006127>
- Creswell, J. W. (2018). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (5th ed.). Sage Publications.
- García-Henche, B., & Blasco-López, M. F. (2020). Sustainable gastronomy tourism: Strategies for sustainable competitiveness in Latin America. *Journal of Tourism and Cultural Change*, 18(4), 425-439. <https://doi.org/10.1080/14766825.2020.1752771>
- González-Sánchez, M., & Sánchez-Torres, A. (2021). The role of gastronomy in sustainable tourism: Evidence from Latin America. *Tourism Management*, 88(2), 104-116. <https://doi.org/10.1016/j.tourman.2021.104116>
- Jiménez-Beltrán, J., Baquero-Forero, J. C., & Oviedo, E. A. (2020). Sustainable tourism and local gastronomy in Latin American rural areas: The case of Cusco, Peru. *Tourism Geographies*, 22(6), 1031-1050. <https://doi.org/10.1080/14616688.2019.1638309>
- Rubio, M., Pedraza, M., & Díaz, G. (2021). Competitiveness and sustainability in gastronomic tourism: A comparative study of Latin American countries. *Journal of Gastronomy and Tourism*, 6(3), 123-139. <https://doi.org/10.3727/216929720X15737448741882>
- Sánchez-Sánchez, A., Velázquez-Fernández, P., & Hernández-Guerrero, M. J. (2020). Sustainable gastronomic tourism in Mexico City: A challenge of environmental awareness. *Journal of Tourism Sustainability*, 12(3), 211-227. <https://doi.org/10.3727/216929720X15737448741234>