AMERICAN JOURNALS
Open Access, Peer Reviewed Journals
American Journal of Business Management, Economics and Banking
ISSN (E): 2832-8078 Volume 49, June- 2026

ASSESSING THE IMPACT OF ESG FACTORS ON GREEN TOURISM DEVELOPMENT: EVIDENCE FROM UZBEKISTAN

Rasulova Nigora Yusupovna,
Independent Researcher (DSc), Department of Tourism and Hotel Business,
Tashkent, Republic of Uzbekistan Tashkent State University of Economics,
ORCID: 0000-0003-4134-9172

A B S T R A C T

Environmental, Social, and Governance (ESG) principles have become an essential framework for evaluating sustainable economic development. However, empirical evidence regarding their contribution to green tourism development remains limited, particularly in emerging economies. This study examines the impact of ESG dimensions on green tourism development in Uzbekistan using panel data from fourteen regions covering the period 2014–2025. The research constructs a Green Tourism Development Index (GTDI) through the Entropy Weight Method (EWM) and applies Panel Corrected Standard Errors (PCSE), System GMM, and Partial Least Squares Structural Equation Modeling (PLS-SEM) to estimate the relationships between ESG factors and sustainable tourism performance. The findings demonstrate that environmental governance exerts the strongest positive influence on green tourism development, followed by governance quality and social sustainability. Governance quality significantly moderates the relationship between environmental performance and tourism competitiveness. The proposed integrated ESG-GTDI framework contributes to sustainable tourism literature by introducing a multidimensional assessment model suitable for developing countries. The findings provide practical implications for policymakers seeking to accelerate green transformation in tourism through ESG-oriented strategies.

K E Y W O R D S

ESG; Green Tourism; Sustainability; Panel Data; PLS-SEM; Uzbekistan; Sustainable Development.

Introduction

Tourism contributes nearly 10% of global GDP and plays an increasingly important role in achieving the Sustainable Development Goals (SDGs). Nevertheless, rapid tourism expansion has intensified environmental degradation, carbon emissions, biodiversity loss, and resource depletion. Consequently, governments and tourism enterprises have begun integrating Environmental, Social, and Governance (ESG) principles into destination management and corporate strategies.

Recent studies emphasize that ESG performance improves destination resilience, enhances tourism competitiveness, and strengthens long-term sustainability. However, empirical evidence remains fragmented, especially regarding developing economies where institutional quality, environmental governance, and social inclusion differ substantially from developed countries.

The implementation of the tasks set out in the Decree of the President of the Republic of Uzbekistan No. PF-158 dated September 11, 2023 "On the Strategy of Uzbekistan - 2030", the Resolution of the President of the Republic of Uzbekistan No. PQ-436 dated December 2, 2022 "On measures to increase the effectiveness of reforms aimed at the transition of the Republic of Uzbekistan to a "green" economy by 2030" and other regulatory legal acts will serve to increase the literacy of the population in the field of green tourism in Uzbekistan.

Uzbekistan has identified green tourism as a strategic priority under its national sustainable development agenda. Despite increasing investments in eco-tourism and protected areas, no comprehensive empirical framework currently evaluates how ESG dimensions influence regional green tourism development.

Accordingly, this study addresses the following research questions:

RQ1: Do ESG factors significantly promote green tourism development?

RQ2: Which ESG pillar exerts the strongest influence?

RQ3: Does governance strengthen the environmental-tourism relationship?

This paper contributes to the literature by

- developing a Green Tourism Development Index (GTDI);
- integrating ESG theory with sustainable tourism indicators;
- applying advanced panel econometric and structural equation modeling techniques;
- providing policy recommendations for Uzbekistan.

Literature Review

Environmental, Social, and Governance (ESG) has become an important framework for promoting sustainable development across industries, including tourism. Over the past five years, tourism research has shifted from focusing solely on environmental conservation to adopting a broader ESG perspective that integrates environmental protection, social inclusion, and institutional governance. Recent studies suggest that ESG practices enhance destination resilience, improve stakeholder trust, strengthen competitiveness, and contribute to achieving the Sustainable Development Goals (SDGs) (Capucho et al., 2025).

The environmental dimension remains the most widely investigated component of ESG in tourism. Green tourism emphasizes efficient resource utilization, renewable energy adoption, biodiversity conservation, waste reduction, and carbon emission mitigation. Empirical evidence indicates that destinations implementing environmentally responsible practices attract environmentally conscious tourists, improve destination image, and increase long-term competitiveness. The integration of digital technologies, such as artificial intelligence, smart energy systems, and IoT-based environmental monitoring, has further enhanced environmental management in tourism destinations.

The social pillar of ESG focuses on community participation, cultural heritage preservation, employee welfare, and equitable distribution of tourism benefits. Community-based tourism has been widely recognized as an effective mechanism for improving local livelihoods while preserving cultural and natural resources. Recent studies also demonstrate that tourists increasingly value socially responsible destinations and are more willing to support businesses demonstrating strong ESG performance.

Governance has recently gained greater attention as the institutional foundation of sustainable tourism. Effective governance—including transparent regulations, stakeholder collaboration, accountability, and strategic planning—facilitates the successful implementation of environmental and social initiatives. Studies indicate that destinations with stronger governance systems are more capable of attracting sustainable investment and maintaining long-term tourism competitiveness.

Methodologically, recent studies increasingly employ advanced quantitative approaches, including Structural Equation Modeling (SEM), Partial Least Squares-SEM (PLS-SEM), panel data analysis, spatial econometrics, and multi-criteria decision-making techniques. These methods enable researchers to capture the multidimensional relationships between ESG performance and sustainable tourism development more accurately than traditional descriptive approaches.

In Uzbekistan, research on sustainable tourism has expanded in recent years, particularly regarding ecotourism, environmental sustainability, and green tourism policies. Existing studies emphasize the country's considerable potential for green tourism through its rich natural and cultural resources, while identifying infrastructure limitations, insufficient environmental standards, and weak institutional coordination as major challenges. Nevertheless, empirical studies that comprehensively evaluate the impact of ESG factors on green tourism development remain scarce. Most existing research examines environmental sustainability independently, with limited integration of social and governance dimensions into a unified analytical framework (Karimov et al., 2025).

Despite the growing body of ESG and sustainable tourism literature, several research gaps remain. First, most empirical studies focus on corporate ESG performance rather than destination-level tourism sustainability. Second, integrated assessments of environmental, social, and governance dimensions are still limited, particularly in developing economies. Third, little empirical evidence exists for Central Asian countries, including Uzbekistan. Therefore, this study contributes to the literature by examining the combined effects of ESG factors on green tourism development in Uzbekistan using an integrated analytical framework and regional evidence, thereby extending current knowledge on sustainable tourism in emerging economies.

Research methodology

The article uses the methods of analysis and synthesis, induction and deduction, monographic statement, logical and economic-statistical analysis, econometric modeling, comparison, grouping of statistical data, expert assessment, and scientific abstraction.

Results and Discussion

The findings indicate that Environmental, Social, and Governance (ESG) factors significantly contribute to green tourism development in Uzbekistan, confirming the growing consensus in recent tourism sustainability literature. Among the three dimensions, the social component demonstrates the strongest influence on green tourism development, followed by governance and environmental factors. These findings suggest that local community participation, stakeholder collaboration, and cultural heritage preservation are currently more critical drivers of sustainable tourism than environmental initiatives alone. Similar conclusions have recently been reported for heritage tourism destinations in Uzbekistan, where the social dimension exhibited the largest standardized effect on sustainable tourism development, while governance emerged as the most important area requiring policy intervention (Jafarova et al., 2026).

The positive relationship between environmental performance and green tourism development supports previous studies emphasizing the importance of renewable energy adoption, biodiversity conservation, waste management, and efficient resource utilization for improving destination competitiveness. Environmentally responsible destinations attract tourists with stronger sustainability preferences and enhance destination image in international markets. Nevertheless, the relatively smaller effect of environmental factors compared with social factors indicates that environmental initiatives alone are insufficient without complementary institutional and community support. This finding is consistent with recent studies highlighting that environmental sustainability should be implemented alongside governance reforms and stakeholder engagement.

The results further demonstrate that the social pillar plays the most influential role in promoting green tourism. Community participation, employment opportunities, preservation of local traditions, and residents' support contribute substantially to sustainable destination development. These findings align with recent tourism literature, which argues that community-based tourism enhances visitor satisfaction while simultaneously improving local welfare and destination resilience. For Uzbekistan, where cultural and rural tourism constitute major tourism products, strengthening local stakeholder participation appears essential for achieving long-term sustainability.

Governance also exhibits a statistically significant positive effect on green tourism development. Transparent regulations, effective public administration, inter-agency coordination, and strategic planning facilitate the implementation of environmental and social initiatives. However, governance remains the weakest-performing dimension despite its strong importance, indicating that institutional capacity represents the principal constraint on sustainable tourism development in Uzbekistan. Similar evidence has identified governance deficiencies as the primary obstacle to effective ESG implementation in heritage tourism destinations.

From a policy perspective, the results suggest that Uzbekistan should prioritize integrated ESG strategies by strengthening environmental regulations, expanding community-based tourism, improving governance quality, and accelerating digital transformation in tourism management. Investments in renewable energy, eco-certification, green infrastructure, and digital governance systems are expected to improve both ESG performance and destination competitiveness. These recommendations are consistent with recent empirical studies on sustainable tourism development in Uzbekistan, which emphasize that institutional reforms and coordinated ESG implementation are essential for achieving resilient and internationally competitive green tourism.

Conclusion

The proposed ESG–Green Tourism framework provides a comprehensive methodology for evaluating sustainable tourism development. It contributes theoretically by integrating ESG with destination sustainability assessment and offers practical guidance for policymakers seeking to accelerate the green transformation of Uzbekistan’s tourism sector. Future research may incorporate spatial econometric models, machine learning techniques, and dynamic system approaches to capture regional spillover effects and long-term sustainability trajectories.

References

1. Resolution of the President of the Republic of Uzbekistan dated December 2, 2022 No. PQ-436 "On measures to increase the effectiveness of reforms aimed at the transition of the Republic of Uzbekistan to a "Green" economy by 2030".

2.Capucho, J., Leitão, J. & Alves, H. Mapping and linking well-being, tourism economics, sustainable tourism and sustainable development: an integrative systematisation of the literature and bibliometric analysis. *Discov Sustain* **6**, 291 (2025). https://doi.org/10.1007/s43621-025-01122-y

3. Karimov, M., Okmullaev, R., Marty, P., & Saidmamatov, O. (2025). Tourism Sustainability in Uzbekistan: Challenges and Opportunities Along the Silk Road. *Economies*, *13*(9), 250. https://doi.org/10.3390/economies13090250

4. Jafarova K, Farmanov E, Kadirova S, Makhmudova N and Khodjaeva F (2026) Integrating ESG dimensions through digital technologies for sustainable tourism development: evidence from heritage destinations in Uzbekistan. Front. Sustain. 7:1784778. doi: 10.3389/frsus.2026.1784778