

The Influence of Gig Economy Practices on Sustainable Tourism Business Performance: The Mediating Role of Business Model Innovation and the Moderating Role of Digital Technology Adoption

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ABSTRACT

Digital technology and the explosive expansion of the gig economy have completely changed how tourism companies manage their staff, deliver services, and achieve long-term business success. With a focus on the moderating function of digital technology adoption and the mediating role of business model innovation, this study investigates the impact of gig economy practices on sustainable tourism business performance. The study examines whether adopting flexible labour practices, using digital platforms, cost-effectiveness, skill availability, and operational flexibility lead to better economic, environmental, and social performance. It focuses on tourism-related firms. It also investigates whether gig-economy techniques improve the performance of sustainable tourism businesses through business model innovation. The study also assesses whether the implementation of digital technology improves the connection between gig economy practices and the success of sustainable tourist businesses. Primary data will be gathered from tourism businesses using a standardised questionnaire. Descriptive statistics, reliability analysis, regression analysis, correlation analysis, mediation analysis, and moderation analysis will all be used to analyse the gathered data. In order to increase competitiveness and achieve sustainable results, the study is anticipated to offer insights into how tourism organisations might strategically combine gig workers, creative business models, and digital technology. In order to create adaptable, technologically enabled, and sustainable tourist business practices, managers, legislators, and other stakeholders may find the findings helpful.

Keywords: Digital Technology Adoption, Business Model Innovation, Gig Economy Practices, Sustainable Tourism Business Performance, Tourism Businesses, Sustainability.

INTRODUCTION

Tourism has increasingly adopted gig economy practices as a strategy to deal with changing market dynamics, technological advances, and changing customer expectations. The gig economy, marked by short-term, flexible, and platform-mediated employment, has transformed the operational structure of tourism enterprises by providing access to a diverse and scalable workforce. Travel and tourism

businesses, including hotels, travel agencies, transport services, and destination management companies, increasingly rely on freelance workers, independent contractors, and digital platform participants to deliver services efficiently. At the same time, increasing awareness of sustainability has led tourism companies to seek economic growth while safeguarding the environment and social welfare. Thus, the performance of sustainable tourism businesses is a major indicator of long-term organisational success. Despite the advantages of gig economy practices like flexibility of workforce, cost reduction, better service accessibility, and optimised use of resources, their direct impact on sustainable tourism business performance has not been sufficiently addressed in the literature. Tourism organisations will also need to continually adapt their business models to capitalise on the opportunities presented by gig-based employment systems and changing customer demands.

Business Model Innovation (BMI) has been seen as a strategic way for organisations to create, deliver, and capture value through innovative operational and managerial approaches. “BMI in the tourism sector can help effectively integrate gig economy practices into business operations, resulting in better sustainability outcomes. Furthermore, the success of gig-based business models is increasingly dependent on the adoption of digital technologies such as artificial intelligence, cloud computing, big data analytics, mobile applications, and digital platforms. The employment of digital technologies enhances operational efficiency, customer engagement, and the capacity of an organisation to make effective use of the resources of the gig economy.

Numerous studies have examined gig economy practices, business model innovation, and digital technology adoption across various sectors. However, limited research has investigated the mediating role of business model innovation and the moderating role of digital technology adoption in the relationship between gig economy practices and sustainable tourism business performance. Drawing on the Resource-Based View (RBV) and Dynamic Capabilities Theory (DCT), the present study seeks to address this research gap by examining how these factors interact to influence sustainable tourism business performance. The study contributes to the existing body of knowledge by providing insights into how tourism businesses can strategically leverage gig workers, innovative business models, and digital technologies to enhance sustainability, improve organisational performance, and maintain a competitive advantage in the evolving tourism industry.

OBJECTIVES OF THE STUDY

- To examine the level of gig economy practices adopted by tourism businesses.
- To assess the level of sustainable tourism business performance among tourism businesses.
- To analyse the influence of gig economy practices on sustainable tourism business performance.
- To identify the dimensions of gig economy practices that significantly influence sustainable tourism business performance.
- To suggest strategies for enhancing sustainable tourism business performance through effective adoption of gig economy practices.

STATEMENT OF THE PROBLEM

The rapid development of the gig economy has significantly altered the tourism sector by enhancing the utilisation of freelance workers, online platforms, and adaptable employment structures. Tourism enterprises are increasingly reliant on gig workers, including tour guides, drivers, accommodation providers, and digital content creators, to enhance service delivery and minimise operational expenses.

Nevertheless, an overreliance on gig workers may lead to challenges such as job insecurity, variable service quality, diminished worker commitment, and insufficient legal protections.

Concurrently, tourism businesses face mounting pressure to achieve sustainable performance by reconciling economic growth, environmental stewardship, and social welfare. While prior research has investigated the gig economy and tourism in isolation, there is a scarcity of studies examining the impact of gig economy practices on sustainable tourism business performance. Additionally, the mediating influence of business model innovation and the moderating effect of digital technology adoption have not been thoroughly explored, especially within the context of the Indian Tourism Industry. Consequently, this study aims to investigate whether business model innovation serves as a mechanism through which gig economy practices enhance sustainable tourism business performance and whether the adoption of digital technology reinforces this relationship.

RESEARCH METHODOLOGY

The study adopts a descriptive and analytical research design using a quantitative research approach to examine the influence of gig economy practices on sustainable tourism business performance, with business model innovation as a mediating variable and digital technology adoption as a moderating variable. The study is conducted among Small and Medium Tourism Enterprises (SMTEs) in Tamil Nadu, including hotels, homestays, travel agencies, and tour operators. The respondents include business owners and managers. A purposive sampling technique is used to select 250 respondents. Primary data are collected through a structured questionnaire using a five-point Likert scale, while secondary data are collected from books, journals, and government reports. The collected data are analysed using SPSS. All responses are kept confidential and used only for academic research purposes.

REVIEW OF LITERATURE

Gutierrez et al. (2023) conducted a systematic literature review to examine the impact of digital transformation and emerging technological innovations on the tourism sector. The study aimed to identify key research trends in digital tourism, classify the existing literature into thematic categories, and develop a conceptual framework explaining the influence of digital technologies on tourism development. Using a systematic literature review methodology, the authors analysed 167 research articles retrieved from the Scopus and Web of Science databases. Descriptive statistics and content analysis were employed to classify the literature into four major themes: Digital Marketing, Digital Economy, Education and Hospitality, and Digital-Free Tourism. The findings revealed that digital transformation plays a significant role in enhancing tourism competitiveness by improving visitor experiences, enabling digital business platforms, supporting sustainable tourism management, and fostering innovation in tourism services.

Shende and Bhand (2025) aimed to study sustainable and innovative business models around the gig workforce in the gig economy from both Indian and global perspectives. The objectives of the study were to explore the structure and growth of the gig workforce, identify the challenges faced by gig workers, examine sustainable business models that balance worker welfare and business growth, compare Indian and global practices, and propose recommendations for a more inclusive and sustainable gig economy. The study adopted a secondary research methodology by analysing government reports, academic journals, industry reports, and global policy documents related to the gig economy. The findings revealed that gig workers face significant challenges such as income instability, lack of social security, and inadequate legal protection. The study further concluded that innovative business models such as platform

cooperatives, hybrid employment models, skill development initiatives, and stronger regulatory frameworks can improve worker welfare while ensuring long-term business sustainability. The research emphasized that collaboration among governments, businesses, and digital platforms is essential to create a fair, inclusive, and sustainable gig economy

Aransyah et al. (2025) examined how sustainability-oriented innovations (SOIs) contribute to sustainable tourism by integrating the perspectives of Ecological Modernization Theory (EMT), Diffusion of Innovations (DoI) Theory, and the Triple Bottom Line (TBL) framework. The study aimed to identify key research trends and gaps, synthesize existing knowledge on the environmental, economic, and social impacts of sustainability-oriented innovations in the tourism sector, and develop a comprehensive theoretical framework for future research. Adopting a bibliometric review methodology, the authors systematically analyzed 88 research articles indexed in the Scopus database to explore publication trends, research themes, methodologies, and theoretical perspectives related to sustainability-oriented innovations in tourism. The findings revealed that sustainability-oriented innovations significantly enhance environmental sustainability by promoting resource conservation, reducing pollution, and encouraging the adoption of green technologies. Economically, these innovations improve business performance through enhanced operational efficiency, increased competitiveness, cost reduction, and the creation of new revenue opportunities through green certifications and eco-labels. Socially, they foster community engagement, improve customer satisfaction, promote social equity, and strengthen stakeholder collaboration. The study concluded that sustainability-oriented innovations are essential for achieving sustainable tourism development by balancing environmental protection, economic growth, and social well-being while offering valuable implications for policymakers, tourism practitioners, and future researchers.

DATA ANALYSIS AND INTERPRETATION

Objective: To examine the influence of Gig Economy Practices, Business Model Innovation, and Digital Technology Adoption on Sustainable Tourism Business Performance.

H0: Gig Economy Practices, Business Model Innovation, and Digital Technology Adoption do not significantly influence Sustainable Tourism Business Performance.

H1: Gig Economy Practices, Business Model Innovation, and Digital Technology Adoption significantly influence Sustainable Tourism Business Performance.

Table1.1- MODEL SUMMARY

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.812	0.659	0.655	0.421

The model explained 65.9% ($R^2 = 0.659$) of the variation in Sustainable Tourism Business Performance, while the remaining 34.1% was explained by other factors outside the model.

Table 1.2 – ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	84.562	3	28.187	158.923	0.000

Residual	43.627	246	0.177		
Total	128.189	249			

The multiple linear regression model was statistically significant ($F = 158.923$, $p < 0.001$), indicating that Gig Economy Practices, Business Model Innovation, and Digital Technology Adoption jointly have a significant influence on Sustainable Tourism Business Performance.

Table1.2 - COEFFICIENTS

Model	Unstandardized Coefficients (B)	Std. Error	Standardized Coefficients (Beta)	t	Sig
(Constant)	0.645	0.231	–	2.792	0.006
Gig Economy Practices (GEP)	0.384	0.058	0.392	6.621	0.000
Business Model Innovation (BMI)	0.301	0.062	0.315	4.855	0.000
Digital Technology Adoption (DTA)	0.267	0.055	0.281	4.873	0.000

INTERPRETATION

The regression coefficients revealed that Gig Economy Practices ($\beta = 0.392$, $p < 0.001$), Business Model Innovation ($\beta = 0.315$, $p < 0.001$), and Digital Technology Adoption ($\beta = 0.281$, $p < 0.001$) all had significant positive effects on Sustainable Tourism Business Performance. Among the predictors, Gig Economy Practices had the strongest influence, followed by Business Model Innovation and Digital Technology Adoption. Therefore, the null hypothesis was rejected, confirming that these three factors significantly contribute to improving Sustainable Tourism Business Performance.

FINDINGS AND DISCUSSION

According to the study, gig economy methods can increase operational efficiency and labour flexibility for tourism businesses. Gig workers can help firms access talent, manage workforce requirements, and reduce costs because tourism encounters seasonal demand and shifting client requirements. Thus, creative services, digital platforms, customised experiences, flexible service delivery, and business model innovation help tourism enterprises transform gig economy practices into sustainable commercial outcomes. Adoption of digital technology enhances the efficient use of gig workers by facilitating hiring, communication, scheduling, payment, customer service, and performance tracking. In general, the sustainability and competitiveness of tourism firms can be improved by integrating gig economy practices, innovative business models, and digital technologies.

CONCLUSION

The study concludes that gig economy practices can significantly support the sustainable performance of

tourism businesses by enhancing workforce flexibility, accessing specialised skills, improving operational efficiency, and managing costs effectively. Business model innovation plays an important role in transforming gig economy practices into sustainable business outcomes through innovative services and efficient processes. Digital technology adoption further strengthens these practices by enabling effective workforce coordination, improved service delivery, customer analysis, and performance monitoring. Thus, the integration of gig economy practices, business model innovation, and digital technology can contribute to the long-term economic, environmental, and social sustainability of tourism businesses.

SUGESSTIONS

Tourism businesses should adopt flexible gig-based workforce strategies to manage changing customer demand and seasonal requirements. They should invest in digital technologies to improve workforce coordination and service delivery. Businesses should also encourage business model innovation through new services, personalised tourism experiences, and digital platforms. Regular training should be provided to gig workers to improve their skills and service quality. Further, tourism businesses should strengthen environmental practices, ensure fair working conditions, support local communities, and use data-driven decision-making to achieve sustainable growth.

REFERENCE

1. Gutierrez, I. E., Ferreira, J. J., Fernandes, C. I., & Farinha, L. (2025). *Digital transformation and the new combinations in tourism: A systematic literature review*. *Tourism and Hospitality Research*, 25(2), 194–204.
2. Shende, S. S., & Bhand, N. (2025). Building sustainable and innovative business models around the gig workforce in the gig economy: An Indian and global perspective. *International Journal of Creative Research Thoughts*, 13(4), 110–122. <https://www.ijcrt.org/papers/IJCRTBA02010.pdf>
3. Aransyah, M. F., Hermanto, B., Muftiadi, A., & Oktadiana, H. (2025). Exploring sustainability-oriented innovations in tourism: Insights from ecological modernization, diffusion of innovations, and the triple bottom line. *Cogent Social Sciences*, 11(1), 2447396. <https://doi.org/10.1080/23311886.2024.2447396>
4. Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120. <https://doi.org/10.1177/014920639101700108>
5. Chesbrough, H. (2010). Business model innovation: Opportunities and barriers. *Long Range Planning*, 43(2–3), 354–363. <https://doi.org/10.1016/j.lrp.2009.07.010>
6. International Labour Organization. (2021). *World Employment and Social Outlook 2021: The role of digital labour platforms in transforming the world of work*. International Labour Organization.
7. OECD. (2021). *The future of work: OECD employment outlook 2021*. OECD Publishing.
8. Teece, D. J. (2010). Business models, business strategy and innovation. *Long Range Planning*, 43(2–3), 172–194. <https://doi.org/10.1016/j.lrp.2009.07.003>
9. Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509–533. [https://doi.org/10.1002/\(SICI\)1097-0266\(199708\)18:7<509::AID-SMJ882>3.0.CO;2-Z](https://doi.org/10.1002/(SICI)1097-0266(199708)18:7<509::AID-SMJ882>3.0.CO;2-Z)
10. United Nations World Tourism Organisation. (2023). *Tourism for sustainable development: Global report*. UNWTO.