

**ENTREPRENEURSHIP AND TECHNOLOGY  
IN TOURISM AND HOSPITALITY**



# **Managing the Smart Revolution in Travel, Tourism, and Hospitality**

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Edited by

**Anukrati Sharma  
Shruti Arora  
Priya Sodani**

# **Managing the Smart Revolution in Travel, Tourism, and Hospitality**

# ENTREPRENEURSHIP AND TECHNOLOGY IN TOURISM AND HOSPITALITY

**Series Editor: Anukrati Sharma**

*Associate Professor, Department of Commerce and Management, University of Kota, India; Director, Skill Development Centre, University of Kota, India*

The *Entrepreneurship and Technology in Tourism and Hospitality* (ETTH) series explores the dynamic intersection of entrepreneurship and technological advancements within the highly competitive tourism and hospitality sectors. This innovative series delves into a variety of pressing topics, highlighting how the relentless evolution of technology and artificial intelligence shapes entrepreneurial opportunities and drives the creation of new business ventures. Each volume in the series aims to provide valuable insights into the challenges and trends impacting these industries, making it a vital resource for understanding the future of tourism and hospitality.

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# **Managing the Smart Revolution in Travel, Tourism, and Hospitality**

EDITED BY

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INVESTOR IN PEOPLE

*To our-self, for showing up, pushing through, and finishing what we started.*  
*To the family, friends, and loved ones, who encouraged and supported*  
*without hesitation.*  
*To the contributors and readers – may these pages inspire, challenge,*  
*and accompany you on your journey.*

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# Preface

The travel, tourism, and hospitality industries stand on the brink of an unprecedented transformation, driven by the rapid evolution of technology. As we navigate the early decades of the 21st century, the “smart revolution” has emerged as a defining force, reshaping every facet of these interconnected sectors. This revolution is not merely about the adoption of new tools or systems; it represents a paradigm shift in how businesses operate, engage with consumers, and deliver value in an increasingly interconnected world. The smart revolution encompasses a wide array of advancements, including artificial intelligence (AI), the Internet of Things (IoT), big data analytics, blockchain, augmented and virtual reality, and automation. Together, these technologies are empowering organizations to deliver highly personalized experiences, optimize operations, and foster sustainability – all while addressing the complex and ever-evolving demands of modern travelers. From seamless booking platforms and AI-powered chatbots to smart hotels and predictive analytics for destination management, the implications are vast and transformative.

This book, *Managing the Smart Revolution in Travel, Tourism, and Hospitality*, is both a guide and a roadmap for navigating these changes. It explores how businesses can harness smart technologies to drive innovation, enhance competitiveness, and create memorable experiences for travelers. It also examines the challenges that come with such transformation, including ethical considerations, data privacy concerns, workforce implications, and the need for sustainable practices.

As the global travel and tourism ecosystem becomes increasingly dynamic, the ability to adapt and evolve is critical. Creating this edited book was primarily aimed to provide industry professionals, academics, and policymakers with the insights and tools needed to thrive in this new era and will offer a comprehensive perspective on the opportunities and complexities of managing the smart revolution.

This book is the conclusion of meticulous efforts of many minds from India, Sri Lanka, USA, Turkey, Bangladesh, Pakistan, Oman, Argentina, and Malaysia. We wish to thank all the contributors for their hard work.

Dr Anukrati Sharma  
Dr Shruti Arora  
Dr Priya Sodani

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## Chapter 1

# Situating Generative AI Tools as a “Smart Revolution” in African American Tourism Entrepreneurship

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### Abstract

Generative artificial intelligence (AI) tools present both exciting opportunities and notable challenges for African American entrepreneurs in the tourism industry. This paper explores how generative AI can drive innovation and growth for entrepreneurial ventures, particularly in areas like content creation, personalized marketing, and fostering relationships with clients who seek culturally enriched experiences. By focusing on the unique perspectives and needs of African American entrepreneurs, the paper offers a theoretical framework to analyze and address the opportunities and obstacles in this space. It presents the key challenges, including the digital divide, limited access to resources, and the need for upskilling. To address these hurdles, the study recommends strategies like building partnerships, implementing targeted training programs, and advocating for inclusive policies that empower African American entrepreneurs in tourism. By emphasizing the importance of diversity, inclusiveness, and cultural preservation, the paper contributes to a broader conversation about the responsible adoption of AI in tourism.

*Keywords:* African American entrepreneurs; tourism industry; generative AI; content creation; targeted marketing; digital divide; upskilling; responsible AI adoption

## Introduction

The recent advancements in generative AI are reshaping the travel, tourism, and hospitality industry by offering innovative tools that redefine customer engagement, content creation, and operational efficiency. Generative AI encompasses a range of technologies, such as language models, image generators, and creative assistants, that enable the autonomous creation of text, visuals, and interactive content. These advancements have the potential to revolutionize tourism by providing personalized marketing campaigns, immersive virtual experiences, and multilingual communication capabilities, thus elevating both customer satisfaction and business competitiveness (Dwivedi et al., 2021, 2023; Tuomi, 2023).

Within this transformative landscape, African American entrepreneurs in the tourism sector face a unique intersection of challenges and opportunities. Historically shaped by systemic inequities and resource disparities, these entrepreneurs often encounter barriers such as the digital divide, limited access to capital, and a lack of technical infrastructure (Pegram et al., 2022; Snowden & Snowden, 2021). Despite these obstacles, the rich cultural heritage and diverse narratives of the African American community present a powerful foundation for leveraging generative AI to create authentic, culturally resonant tourism experiences. By integrating AI into their operations, African American tourism entrepreneurs can overcome traditional barriers and position themselves as key players in a competitive, innovation-driven industry.

There is huge potential benefit for African American tourism entrepreneurs seeking recovery from the economic disruptions of COVID-19 with generative AI. These might include rebuilding the customer base with personal and culturally sensitive marketing campaigns. For example, AI-powered applications have the ability to analyze shifting consumer preferences – such as a growing emphasis on safe, contactless, and experiential travel – and make outreach efforts based on these. Also, generative AI can create virtual experiences, such as immersive tours of historical sites or interactive storytelling about African American heritage, that enable businesses to reach audiences that may still be leery about traveling. These virtual offerings not only maintain engagement but also expand the reach of African American tourism enterprises to international and remote markets. Moreover, AI-driven customer service tools, such as chatbots, further enhance efficiency and responsiveness, thus enabling businesses to keep pace with the rapidly changing needs of customers. In other words, generative AI creates an avenue for innovation, sustainability, and emergence by African American tourism entrepreneurs in a post-pandemic world.

This exploratory work connects generative AI to the broader “smart revolution” transforming the travel, tourism, and hospitality sectors. As smart technologies continue to drive industry innovation, the equitable adoption of generative AI becomes paramount. By enabling African American entrepreneurs to harness AI’s potential, the tourism industry not only fosters cultural preservation but also ensures inclusivity in technological progress. This chapter situates generative AI within the larger narrative of the smart revolution, emphasizing its role as both a disruptor and an enabler in advancing diversity and equity in tourism entrepreneurship.

## **Theoretical Framework**

Technology adoption among Black-owned businesses is driven by structural inequities, resource access, and cultural factors. Studies have highlighted various initiatives, such as the Community Tech Workers program, that use a community-based approach to support Black-owned enterprises in adopting digital technologies that are appropriate for their realities. These programs build on trust and culturally relevant support systems to develop a deeper engagement with digital technologies (Hui et al., 2023). On a related note, entrepreneurial research proves that the usage of technology has ensured efficient marketing, proper mobilization of resources, and better management of risks; hence, this has been helping to ensure that the business can become sustainable with even limited resources (Imdad, 2023). However, various systemic obstacles persist due to restricted capital, limited access to digital literacy, and solution packages; this, in turn, demands more inclusive strategy action. This means that the IT models of minorities enhance cultural fit of technology to create economic gains in societies that are disadvantaged (Qureshi & York, 2008). These initiatives will underline the fact that there must be continued investments into culturally sensitive ecosystems with a goal of closing this gulf existing between technology and society through characteristic strengths of African American businesses.

In this context, we believe that the integration of generative AI in African American tourism entrepreneurship can be better understood through the application of certain key theoretical frameworks. These theories provide insights into how entrepreneurs adopt, adapt to, and benefit from innovative technologies while addressing systemic challenges. The Diffusion of Innovation Theory, Resource Dependence Theory, and Social Learning Theory offer valuable perspectives on adoption patterns, resource mobilization, and community-driven learning. After presenting these theories, we will propose an integrative framework that brings together the complementarities in them.

### ***Diffusion of Innovation Theory***

Proposed by Rogers, the Diffusion of Innovation Theory examines how new ideas, technologies, or practices spread within a population or organization (Rogers et al., 2014). The theory categorizes adopters into innovators, early adopters, early majority, late majority, and laggards based on their willingness to embrace innovation (Achieng & Ruhode, 2013).

For African American tourism entrepreneurs, this theory helps explain the varying rates of generative AI adoption:

- *Innovators and early adopters*: These entrepreneurs are likely to experiment with generative AI tools, recognizing their potential to enhance marketing, customer engagement, and operational efficiency. They often have better access to resources, such as funding and technical expertise.
- *Late majority and laggards*: Entrepreneurs in these categories may face significant barriers, including limited digital infrastructure and low AI literacy. Their slower adoption highlights the need for targeted interventions to bridge the gap.

By applying the Diffusion of Innovation Theory, stakeholders can identify strategies to encourage adoption across all segments. For instance, demonstration projects showcasing the benefits of generative AI could influence later adopters by addressing their concerns and providing concrete examples of success.

### ***Resource Dependence Theory***

The Resource Dependence Theory emphasizes that organizations rely on external resources to achieve goals and maintain competitiveness. The theory suggests that strategic partnerships can help organizations address resource constraints by aligning with entities that possess the necessary capital, expertise, or technology (Kalaitzi et al., 2019).

In the context of generative AI adoption, African American tourism entrepreneurs often face significant resource limitations, including funding shortages, lack of technical infrastructure, and gaps in expertise. Resource Dependence Theory highlights the value of:

- *Collaborations with AI providers:* Partnerships with technology companies can provide access to affordable AI tools and training.
- *Engagement with public and private entities:* Working with tourism boards, cultural institutions, and government programs can unlock financial and technical resources.
- *Networked solutions:* Collaborating with other entrepreneurs and community organizations can enable shared resources, such as joint marketing campaigns or shared AI tools.

These partnerships help reduce resource dependency, enabling entrepreneurs to adopt and benefit from generative AI effectively.

### ***Social Learning Theory***

Social Learning Theory, introduced by Bandura, posits that individuals learn behaviors and practices by observing, imitating, and modeling the actions of others within their social networks. This theory emphasizes the importance of community and peer influence in shaping learning and adoption patterns (Markowska & Wiklund, 2020).

For African American tourism entrepreneurs, community-driven learning is critical in overcoming barriers to generative AI adoption:

- *Observational learning:* Entrepreneurs are likely to adopt AI technologies after witnessing successful implementations by peers or community leaders.
- *Knowledge sharing:* Social networks and mentorship programs play a vital role in disseminating information about generative AI tools and their applications.
- *Enhanced self-efficacy:* Positive examples within the community can boost confidence and motivate entrepreneurs to explore and integrate AI technologies into their operations.

Social Learning Theory suggests that creating collaborative learning environments, such as workshops or community forums, can facilitate widespread adoption by encouraging entrepreneurs to learn from each other’s experiences.

***An Integrative Theoretical Framework: Convergence of Diffusion, Resources, and Learning***

We propose the Convergence of Diffusion, Resources, and Learning (CDRL) framework, which combines key ideas from the Diffusion of Innovation Theory, Resource Dependence Theory, and Social Learning Theory into a unified, dynamic model that goes beyond simplistic, linear explanations of entrepreneurial success. This framework suggests that success emerges at the crossroads of three main elements:

- Innovation Amplification, where ideas and innovations spread and scale through networks of influence.
- Resource Ecosystem Synergy, which maximizes partnerships and shared assets to address resource limitations.
- Adaptive Learning Spiral, a continuous process of observing, experimenting, and refining strategies within communities.

Unlike traditional models, the proposed CDRL emphasizes the synergistic effects that arise when these elements interact. For example, the diffusion of innovation becomes faster and more impactful when supported by strong resource networks and environments that encourage adaptive learning. This interconnected approach creates an ecosystem where entrepreneurs can adopt cutting-edge technologies like AI, tailor solutions to their specific needs, and amplify their impact through collaboration. By prioritizing inclusivity and partnership, the CDRL framework offers a compelling way to examine how African American tourism entrepreneurs adopt generative AI.

*Understanding African American Business AI Adoption Through CDRL*

*Innovation Amplification.* African American entrepreneurs adopting generative AI frequently start as innovators or early adopters. They use the technology for initiatives like personalized marketing, virtual tours, and customer engagement. Through innovation networks, their achievements inspire others, building momentum for widespread adoption. For instance, a small business using AI-powered storytelling to promote heritage tourism could serve as a model for others, demonstrating how AI can elevate cultural narratives.

*Resource Ecosystem Synergy.* Generative AI tools can be costly and require specialized expertise. The framework highlights the importance of shared resources and partnerships – such as AI hubs, collaborations with tech providers, and community-driven networks – to lessen reliance on individual resources. For example, entrepreneurs pooling funds to develop AI-based marketing campaigns can achieve results on a scale that would be unattainable individually.

*Adaptive Learning Spiral.* Overcoming the technical and strategic hurdles of AI adoption requires learning through observation and experimentation. African American entrepreneurs benefit from peer-to-peer knowledge-sharing environments where success stories are exchanged and adapted. Generative AI tools themselves support this process by enabling quick iterations and feedback, empowering entrepreneurs to fine-tune their approaches.

The integrated framework, identified and interpreted from the theories presented earlier, adopts a holistic approach in advancing the adoption of generative AI among African American tourism entrepreneurs by capitalizing on the natural diffusion process of innovation and addressing systemic barriers through resource mobilization and community-driven learning. It brings together under one roof strategies that nurture the adoption of innovation across heterogeneous segments with partnerships that reduce the resource gap – both in terms of finance and expertise in technology – while stimulating peer-to-peer learning to gain confidence and knowledge. All these dimensions integrated within a supportive ecosystem will eventually enable entrepreneurs to access tools, mentorship, and shared resources to tackle challenges and embrace AI technologies. It will finally position generative AI as a transformative tool in the enhancement of competitiveness, cultural preservation, and sustainable growth in African American tourism entrepreneurship.

## **The Socio-economic Context of African American Tourism Entrepreneurship**

African American tourism entrepreneurship operates within a unique socio-economic framework defined by both remarkable cultural contributions and persistent systemic challenges. African American-owned tourism businesses are critical in preserving historical narratives, showcasing cultural heritage, and fostering diversity within the travel industry. These enterprises often act as stewards of African American culture, providing visitors with opportunities to connect with history and traditions through curated experiences, heritage sites, and cultural festivals (Snowden & Snowden, 2021).

The tourism industry has seen a transformative shift with the integration of generative AI, which has improved customer engagement and operational efficiency (Ilieva et al., 2024). However, inequitable development of generative AI could worsen the racial economic gap in the U.S. by \$43 billion annually (Brown et al., 2023). This concern is not speculative, as African American entrepreneurs often face limited access to financing and are disproportionately discouraged from applying for loans (U.S. Small Business Administration, 2022).

Systemic inequalities, restricted funding access, and resource limitations pose significant obstacles to growth and innovation for African American tourism entrepreneurs (Pegram et al., 2022). The digital divide further intensifies these challenges, as disparities in access to technology and digital skills impede the adoption of modern tools crucial for success in today's tourism landscape (Snowden & Snowden, 2021). Moreover, socio-economic crises, such as the

COVID-19 pandemic, have disproportionately impacted African American-owned businesses, amplifying their vulnerabilities (Rogerson et al., 2021).

Generative AI presents a transformative opportunity to address these challenges and empower African American entrepreneurs. By automating resource-intensive tasks like content creation and marketing, generative AI can mitigate resource constraints, allowing entrepreneurs to concentrate on enhancing customer experiences (Dwivedi et al., 2021). AI-driven innovations such as virtual tours and immersive experiences can help bridge the digital divide, enabling businesses to reach broader audiences with creative offerings (Tuomi, 2023).

Beyond operational advantages, generative AI can play a significant role in cultural preservation. AI-powered tools can develop culturally relevant narratives, interactive exhibits, and multilingual content, thereby enriching the portrayal of African American heritage. Technologies like virtual reality (VR) and AI-generated storytelling can animate historical sites and artifacts, engaging both domestic and international tourists in profound ways. These innovations not only elevate the visibility of African American culture but also give tourism businesses a competitive edge in a globalized marketplace.

By tackling systemic barriers and advancing cultural preservation, generative AI provides African American tourism entrepreneurs with a pathway to thrive in the evolving industry. Its integration symbolizes a harmonious blend of technological progress and cultural authenticity, offering a sustainable model for overcoming entrenched challenges while celebrating and sharing African American heritage with the world.

### ***Intersectionality and Contextual Challenges***

Intersectionality is a foundational concept in African American Studies, offering a nuanced framework to analyze how overlapping social identities – such as race, gender, class, and sexuality – interact to produce unique experiences of oppression and privilege. Intersectionality emerged from the need to address the compounded discrimination faced by African American women, which was often overlooked by analyses focusing solely on race or gender (Collins, 2022; Crenshaw, 2013).

The challenges faced by African American tourism entrepreneurs in adopting generative AI are deeply intertwined with the intersecting factors of gender, socioeconomic status, and geographic location. These dimensions amplify existing systemic barriers and create unique hurdles for individuals within this demographic. For example, African American women, who often operate as entrepreneurs within the tourism industry, encounter a compounded set of challenges due to both racial and gender biases. These biases manifest in restricted access to funding, limited networks for mentorship, and heightened scrutiny when seeking partnerships or resources. While generative AI has the potential to level certain aspects of the playing field, the uneven starting points created by intersecting identities require tailored solutions to bridge these gaps effectively.

Geographic location further exacerbates disparities, as African American entrepreneurs operating in rural or economically disadvantaged areas are often excluded from access to reliable digital infrastructure, such as broadband internet and affordable technology. These limitations reinforce the digital divide, making it challenging for businesses to integrate generative AI tools into their operations. For instance, an African American tourism entrepreneur in a rural region may face difficulties in creating immersive virtual tours or using AI-powered marketing tools due to insufficient bandwidth or technical support. Moreover, socioeconomic status heavily influences the ability to invest in upskilling and technological adoption. Entrepreneurs with fewer financial resources may lack the ability to participate in training programs or invest in high-quality AI tools, placing them at a further disadvantage compared to their peers in better-resourced areas. Understanding and addressing these intersecting factors is critical for equitable AI adoption and ensuring that African American tourism entrepreneurs can fully harness the transformative potential of these technologies.

## **Generative AI Applications in Tourism**

Generative AI plays a pivotal role in transforming the tourism industry by enhancing marketing and improving customer and visitor experiences through a variety of advanced tools and capabilities. For African American tourism entrepreneurs, these technologies offer unique opportunities to amplify cultural narratives, engage broader audiences, and deliver impactful, personalized experiences.

Generative AI enables businesses to develop culturally resonant marketing content tailored to specific audiences. By analyzing data on African American heritage, traditions, and customer preferences, AI-powered tools can create compelling visuals, narratives, and multimedia content that authentically capture the cultural essence of their offerings. This capability helps tourism businesses stand out in competitive markets by effectively showcasing their unique value propositions. For example, AI can produce blog posts, social media content, and promotional materials that spotlight historical landmarks, cultural events, and local African American traditions.

Personalized marketing is central to modern tourism strategies, and generative AI excels in this area. By leveraging customer data, such as preferences, past interactions, and demographics, AI can craft marketing campaigns that meet individual needs. For African American tourism entrepreneurs, this translates to creating tailored travel itineraries, promotional offers, and experiences for diverse customer segments. This targeted approach enhances customer engagement and fosters loyalty by delivering value and relevance.

VR- and AI-powered tools are revolutionizing destination exploration. Generative AI can create immersive virtual experiences that bring African American culture and history to life. Virtual tours of historical sites, reenactments of significant moments in African American history, and interactive cultural exhibits allow tourists to connect deeply with destinations before visiting. These experiences also function as powerful marketing tools, offering a preview to potential visitors.