Chapter 12
Transforming the
Travel Landscape:
Smart Contracts in Tourism Management

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ABSTRACT

This chapter explores smart contract integration in tourism, examining its current state, applications, challenges, and future trajectories. Leveraging blockchain, smart contracts enhance transaction security and transparency, addressing fraud concerns. They significantly cut costs and boost efficiency in booking and payment, benefiting travelers and service providers with increased control and trust. Challenges like technical hurdles, legal considerations, and seamless system integration are viewed as opportunities for meticulous resolution. Emphasis is placed on addressing scalability, coding, legal frameworks, and user education. The chapter envisions a future where smart contracts merge with AI/ML, reshaping personalized travel services. It explores DAOs in tourism, suggesting decentralized decision-making, transparent governance, and community-driven initiatives. The chapter acknowledges limitations and advocates for ongoing monitoring due to the dynamic nature of smart contracts.

INTRODUCTION

A smart contract represents a revolutionary paradigm shift in contract execution, leveraging the transformative capabilities of blockchain technology. Fundamentally, a smart contract is just a computer programme that runs on a blockchain network and is self-executing. In contrast to traditional contracts, which depend on middlemen such as banks, notaries, or legal organisations to enforce and verify terms, smart contracts run independently and carry out predetermined conditions automatically. Blockchain technology is the main component that makes smart contracts possible. These contracts are built on top of blockchain, which is sometimes referred to as a distributed and decentralised ledger. The capacity of blockchain to provide a safe and unchangeable record of transactions is its distinctive characteristic.

The travel sector is only one of the many industries that smart contracts have the potential to transform. Smart contracts have the potential to automate a multitude of tasks in the travel industry, including reservation booking and payment, itinerary and accommodation management, asset rental and sharing, insurance and risk management for travel services, customer relationship management, and loyalty programmes. According to a new analysis by Allied Market Research, the travel and hospitality sector will be a major driver of the worldwide smart contracts market, which is expected to reach USD 27.5 billion by 2028. Eighty percent of travel industry executives believe blockchain technology will have a major influence over the next five years, according to another IBM poll, and smart contracts might save travel industry up to $2 billion annually through automation and fraud reduction.

Because of their potential to improve transaction efficiency, transparency, and security, smart contracts self-executing digital contracts with conditions encoded directly into code—have drawn a lot of interest. These contracts provide a viable way to simplify a number of procedures in the tourist management field, from data administration and loyalty programmes to reservations and payments (Demirel et al., 2022). In the current environment, smart contracts are being used more and more in many areas of tourist management. Smart contracts are proving their adaptability in solving industry-specific problems, from handling complicated travel schedules to automating booking procedures and securing payments (Joo et al., 2021). Smart contracts stand out as a shining example of innovation as the travel industry struggles with the demand for more smooth, safe, and effective operations. Notwithstanding the significant potential advantages of smart contracts for tourist management, there are still difficulties. Obstacles that require attention include uncertainty around regulations, integration challenges, and the necessity of extensive industry engagement. Unlocking the full potential of smart contracts and laying the groundwork for their successful deployment need an understanding of these issues (Ozdemir et al., 2020). The use of smart contracts in tourist management will affect many different stakeholders in significant ways. Increased security, expedited procedures, and better experiences all around will benefit travellers. In contrast, service providers are faced with the problem of adjusting to this new technology paradigm while weighing the possible benefits against the real-world difficulties (Karagoz Zeren & Demirel, 2020). Through an examination of their uses, difficulties, and consequences for industry stakeholders, this study aims to present a thorough overview of the situation of smart contracts in tourist management today.

BENEFITS OF SMART CONTRACTS IN TOURISM MANAGEMENT

By streamlining and automating procedures, the use of smart contracts in tourist management has several advantages and is revolutionising the sector. These agreements reduce administrative burden and expedite

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