

Chapter 6

AI–Driven Transformation of Job Roles for Sustainable Competitive Advantage in India’s Tourism Sector

Masrat Rasool Mir

University of Kashmir, India

Mushtaq Ahmad

University of Kashmir, India

ABSTRACT

This chapter examines the transformative impact of artificial intelligence (AI) on employment positions in India's travel industry, as framed by the Technology Acceptance Model (TAM) and Resource-Based View (RBV). While demanding new skill sets, AI technologies such as data analytics and machine learning are becoming indispensable to tourism operations, transforming employment by boosting efficiency, decision-making, and individualized client experiences. Based on case studies from travel and hotel companies, the chapter shows how artificial intelligence may be used for competitive advantage. It addresses the twin effects of artificial intelligence—job displacement and the emergence of sophisticated roles requiring specific knowledge. Examined also are ethical issues like keeping human-centric service paradigms. Finally, the chapter offers important insights for legislators and business leaders navigating AI's increasing presence in tourism by providing a framework for comprehending the junction of artificial intelligence, job change, and sustainable competitiveness.

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INTRODUCTION

The tourism sector in India, among the nation's rapidly expanding businesses, is crucial for fostering economic growth, generating employment, and facilitating cultural interaction (Khatik & Nag, 2012; Akhtar, 2018). As global markets progress, technology innovations are essential in influencing business operations, customer interactions, and human capital management (Buhalis et al., 2023; Menzies et al., 2024). Artificial intelligence (AI) has emerged as a formidable force capable of profoundly transforming the tourism industry (Chowdhury et al., 2023; Rashid et al., 2024). AI technologies, such as machine learning, data analytics, chatbots, robotic process automation, and natural language processing, have become essential to the tourism ecosystem, driving innovations in service delivery, improving operational efficiency, and offering personalized experiences to travelers (Bulchand-Gidumal et al., 2024; Sousa et al., 2024). The incorporation of AI in tourism is a component of a wider digital shift that is redefining businesses worldwide. In India, where tourism significantly contributes to GDP and employment, the implementation of AI presents both an opportunity and a difficulty (Sousa et al., 2024; Godara et al., 2020). AI provides firms with novel avenues to augment their competitive advantage. Conversely, it necessitates a reevaluation of the conventional work positions that have historically defined the industry (Yang et al., 2024; Buhalis et al., 2023). The duality renders the examination of AI's influence on tourism in India a captivating research domain, especially in comprehending its effects on organizational strategy and the workforce (Bulchand-Gidumal et al., 2024).

This chapter examines the capacity of AI to generate lasting competitive advantages for Indian tourist firms, utilizing two principal theoretical frameworks: the Resource-Based View (RBV) and the Technology Acceptance Model (TAM). The Resource-Based View underscores the significance of distinctive, valuable, and non-replicable resources in attaining competitive advantage (Madhani, 2010; Barney, 1991). Within the realm of tourism, artificial intelligence serves as a strategic asset enabling enterprises to enhance operational efficiency, provide exceptional customer service, and create innovative business models that are challenging for competitors to imitate (García-Madurga & Grilló-Méndez, 2023; Haleem et al., 2022; Kannan, 2024). Through the automation of repetitive processes, AI liberates human resources to concentrate on higher-value activities, like personalized customer engagement, innovative problem-solving, and strategic decision-making (Koo et al., 2021; Buhalis et al., 2023). Furthermore, AI technologies empower firms to utilize the extensive data produced by tourists. AI-driven data analytics solutions offer insights into client preferences, habits, and trends, allowing tourism organizations to develop highly tailored experiences that appeal to contemporary travelers (Batoool et al., 2023). Personalized service is now a crucial distinction in the

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