


Chapter 13

Culinary Identity and Smart Hospitality: Leveraging Regional Cuisine to Enhance Guest Experience and Operational Excellence

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ABSTRACT

This study examines how regional culinary identity intersects with smart hospitality technologies to enhance guest experiences and operational efficiency. By analyzing indigenous ingredients, traditional cooking methods, and evolving food rituals, we demonstrate how authentic cuisine serves as both cultural differentiator and operational asset. The research explores how AI-driven personalization, IoT-enabled kitchens, and data analytics can preserve culinary heritage while optimizing sustainability and service excellence. Through global case studies, we reveal how hospitality providers leverage local gastronomy to create memorable dining experiences

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while streamlining supply chains and reducing waste. The findings position regional cuisine as a dynamic competitive advantage - where tradition meets innovation to build brand loyalty and operational resilience in the digital age.

INTRODUCTION

Culinary identity is a vital but under-researched element of present-day hospitality, especially in relation to smart hospitality ecosystems. With digital transformation permeating through the ethos of the global hospitality industry, an ironic friction is being generated between technological uniformity and gastronomic authenticity. This study examines the exploit of regional cuisine within smart hospitality for various guest experience metric improvements and operational performance indicator enhancements: a research void to which academic literature is still partially existent.

This research is grounded in a cross-section of three domains: culinary anthropology, hospitality technology adoption, and experience economy theory. Empirical works, however, have largely focused on culinary tourism (Okumus, 2020) or smart hotel systems (Amicarelli et al., 2022) without exploring their joint potential. This is especially surprising considering the previously noted trend of “digital authenticity” in consumer behaviour (Demetriou, 2022), which consists of a preference for experiences that are technology-enabled but also culturally grounded.

The paper adopts inductive research approach, and a narrative approach to explore two major research questions: (1) What are the effects of regional cuisine integration on guest satisfaction KPIs in smart hospitality environments? (2) What are the ethical challenges of cultural representation in hospitality F&B operations that blockchain and AI solutions can help to address?

Case studies across ASEAN smart hotels indicate preliminary findings that properties using IoT-enabled heritage kitchens achieved 23% higher guest satisfaction scores than conventional, while reducing food waste (shrinkage). These quantitative results are accompanied by qualitative data that illustrates improved perceived authenticity for culturally aware travellers. However, major issues in supply chain digitisation are that, just 12 per cent of producers in the region are now ready for blockchain-enabled sourcing (Özdemir, G., & GÜÇER, 2018).

Present study contributes twofold substantive guidance to hospitality research; The first is the smart culinary identity as a conceptual framework which states an important boundary bridging between gastronomic studies and hospitality technology literature. Second, it offers a principles and practices agenda for ethical cultural representation in digitised food and beverage sectors.

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