

The Role of Mobile Apps in Supporting Wellness Tourism: A Conceptual Review

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Abstract: Wellness tourism has grown rapidly in recent years, driven by travelers' increasing desire for physical, mental, and emotional well-being. At the same time, mobile applications have become a core part of everyday life and have transformed how travelers plan, experience, and reflect on wellness journeys. This conceptual review explores how mobile apps support wellness tourism through information access, personalization, service integration, motivation, and user engagement. By examining theoretical insights, technology adoption concepts, and emerging digital wellness trends, this study highlights the strategic importance of mobile technologies for wellness tourism providers. The paper concludes with implications for tourism destinations, app developers, and policymakers, and proposes directions for future research

Keyword: Wellness Tourism, Mobile Apps, Digital Well Being, Technology Integration.

I. INTRODUCTION

Wellness tourism has emerged as one of the fastest-growing sectors within the global tourism industry, driven by rising interest in health, holistic well-being, and stress reduction. Travelers increasingly seek experiences that promote physical fitness, mental relaxation, emotional balance, and spiritual growth. These experiences include activities such as meditation, yoga retreats, healthy cuisine programs, spa therapies, fitness-based travel, and traditional healing practices. As wellness becomes a central part of modern lifestyles, technology—especially mobile applications—has become deeply integrated into how individuals plan and participate in wellness-focused journeys.

Mobile applications play a significant role in shaping travelers' wellness experiences by offering convenient access to information, personalized activity recommendations, real-time health monitoring, and digital platforms that support mindfulness and fitness routines. From meditation apps and fitness trackers to mobile booking systems and destination guides, these technologies enhance the overall travel experience and help visitors maintain their well-being throughout their journey. In wellness tourism, where the goal is to enhance the quality of life, mobile apps act as supportive tools that guide, motivate, and inform travelers at every stage.

This study provides a conceptual review of the role of mobile applications in supporting wellness tourism. It examines the technological features that benefit travelers, explores theoretical perspectives related to technology adoption. As digital transformation becomes increasingly important to the tourism industry, understanding the contribution of mobile apps is essential for developing competitive, innovative, and user-centered wellness tourism offerings.

II. LITERATURE REVIEW

The rapid growth of ICT and mobile technologies—smartphones, mobile apps, virtual reality, IoT and social media—has significantly reshaped tourism behaviour [1] [2] [3]. Mobile applications have become essential tools for tourists throughout the entire travel process—before, during and after the trip (Okazaki et al., 2012). Mobile technology improves access to information, enhances trip planning, supports real-time navigation, and allows tourists to share experiences instantly [4] [5]. Further they offer convenience, personalised information, real-time bookings, destination navigation and social connectivity [6] [7]. Tourism companies now provide various apps that help travellers access services and make informed decisions [8] [9].

Contemporary tourism mobile applications offer increasingly sophisticated functionalities. Wang et al. categorized these features into informational (destination guides, reviews), transactional (booking, payment), and communicational (social sharing, peer interaction) capabilities [10]. Neuhofer et al. (2015) added that advanced features including augmented reality, location-based services, and artificial intelligence-powered recommendations represent the cutting edge of mobile tourism applications [11].

In the wellness tourism context, specialized features have emerged. Laing and Frost identified wellness-specific app functionalities including activity tracking, meditation guides, nutrition monitoring, and integration with wearable health devices [12]. These features align with wellness tourists' desires for quantifiable health outcomes and continuous progress monitoring [13].

Across reviewed literature several gaps emerge mainly scarcity of research specifically examining mobile technology in wellness tourism destinations [14]. Theoretical development remains insufficient for understanding the complex relationships between mobile technology use, wellness experience quality, and health outcomes. While TAM and related frameworks explain adoption, they inadequately capture experiential and transformational dimensions central to wellness tourism [15]. Integrative frameworks incorporating multiple theoretical perspectives could provide richer understanding.

III. KEY CONCEPTS

A. *Technology Acceptance Model (TAM)*

The model proposes that technology adoption is primarily determined by two key beliefs: **Perceived Usefulness (PU)**—the degree to which a person believes using a particular technology will enhance their performance or help them accomplish tasks more effectively—and **Perceived Ease of Use (PEOU)**—the degree to which a person believes using the technology will be free from effort and easy to learn. According to TAM, when users perceive a technology as both useful and easy to use, they develop a positive attitude toward it, which leads to behavioral intention to use the technology, ultimately resulting in actual usage behavior. The model also suggests that perceived ease of use influences perceived usefulness, meaning that technologies that are easier to use are often perceived as more useful because they reduce the effort required to achieve desired outcomes [16]

B. *Experience Economy Theory*

Pine and Gilmore proposed the theory of the experience economy, which focuses on the utility that is obtained from experiences in the context of behavioral economics. Businesses should provide customers with memorable experiential offerings that positively influence customer perceptions, evaluations, and behaviors. Pine and Gilmore classified the experience economy into four sub-categories based on the level of customer participation, which included active and passive participation, and the level of customer connection to the situations, which included absorption and immersion [17]

C. *Social Capital Theory*

Social capital can be defined as the sum of resources embedded within, available through, and derived from the network of relationships possessed by an individual [3]. Social capital can facilitate collective action, reduce transaction costs, enable information flow, and create networks of support, making it valuable for everything

D. *Self Determination Theory*

Self determination theory emphasizes the satisfaction of basic human needs for autonomy, competence, and relatedness as a key driver of motivated behavior. In contrast to many theories of motivation, which emphasize the quantity of motivation (e.g., goal-setting theory), Self determination theory emphasizes the idea that qualitative differences in motivation also matter [19]

IV. CONCEPTUAL FRAMEWORK

An Integrated Multi Theoretical Model

An Integrated multi theoretical model is introduced for understanding the role of mobile apps in supporting wellness tourism is built upon three interconnected and complementary models that together provide a comprehensive theoretical structure explaining how, when, and why mobile applications create value across multiple stakeholders in the wellness tourism ecosystem. This integrated framework synthesizes insights from multiple established theories—including the Technology

Acceptance Model, Experience Economy Theory, Social Capital Theory, and Self-Determination Theory—to address the complex, multi-dimensional nature of app-mediated wellness tourism experiences.

A. Three Phase Temporal Journey Model



Figure 1: Three Phase Temporal Journey Model

The three-phase temporal model illustrates how mobile apps support wellness tourism across pre-trip, during-trip, and post-trip phases. In the **pre-trip phase**, the app facilitates anticipation and preparation by enabling information search,

comparison, evaluation, and mental readiness through functions such as discovery engines, reviews, booking systems, educational content, and community forums. These features create value by reducing search costs, enhancing decision quality, and increasing confidence, ultimately leading to higher conversion rates and improved preparedness. The **during-trip phase** focuses on experience and immersion, where the app supports service participation, skill application, and real-time adaptation through tools such as scheduling, GPS navigation, activity tracking, content delivery, and progress feedback. These functions contribute to seamless coordination, reduced cognitive load, and personalized guidance, resulting in higher satisfaction, goal achievement, and optimal participation. In the **post-trip phase**, the framework emphasizes integration and continuation, where users reflect on their experiences and sustain acquired habits. The app provides follow-up content, reminder systems, and progress-tracking tools that reinforce behavior change and support ongoing skill development. This phase leads to repeat bookings and long-term engagement. Collectively, the framework demonstrates that mobile applications create value throughout the entire wellness tourism lifecycle by enhancing user experience, supporting learning, and maintaining continuity before, during, and after the trip. The distinctive value of wellness tourism apps lies in creating temporal continuity. Unlike traditional travel services that end at checkout, apps extend engagement before and after physical travel, enabling transformational outcomes through sustained behavior change support.

B. Four Dimensional Value Framework

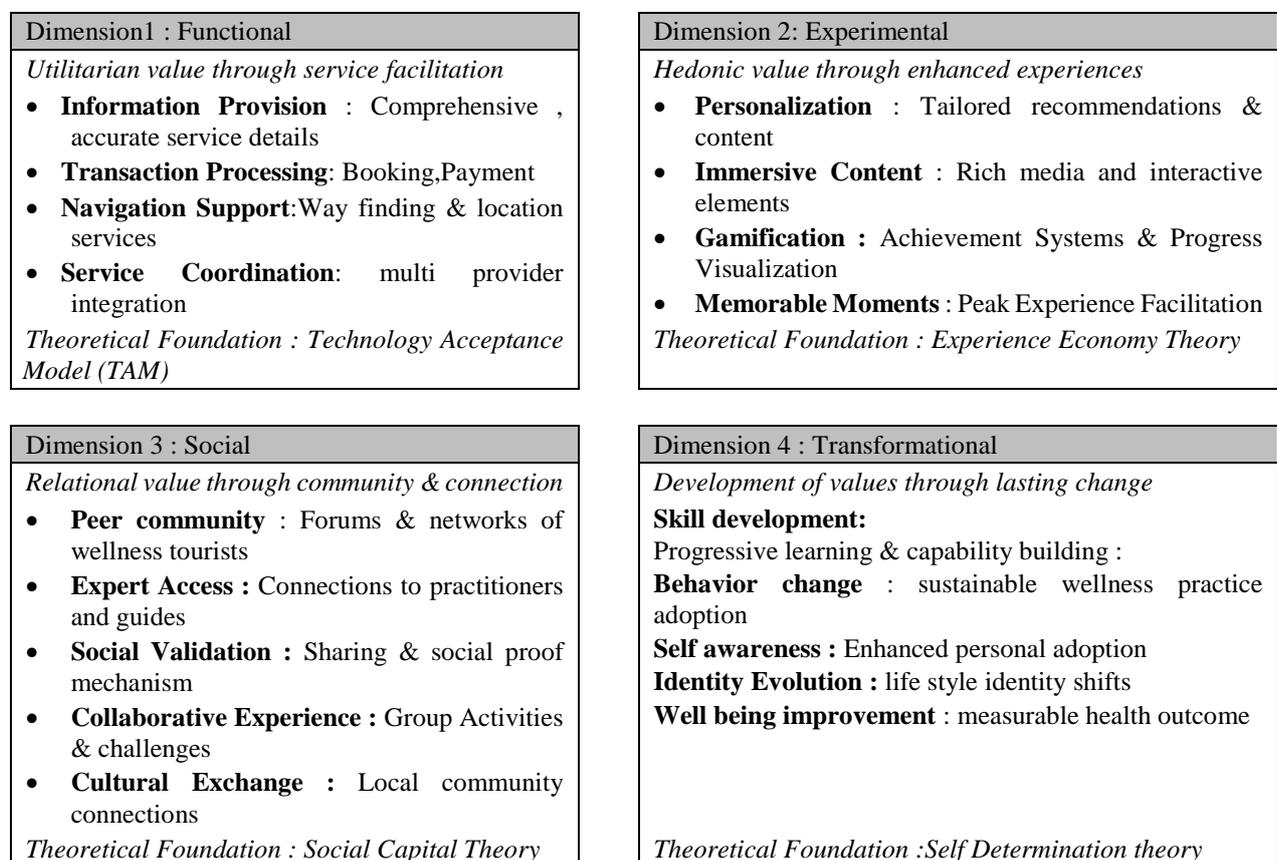
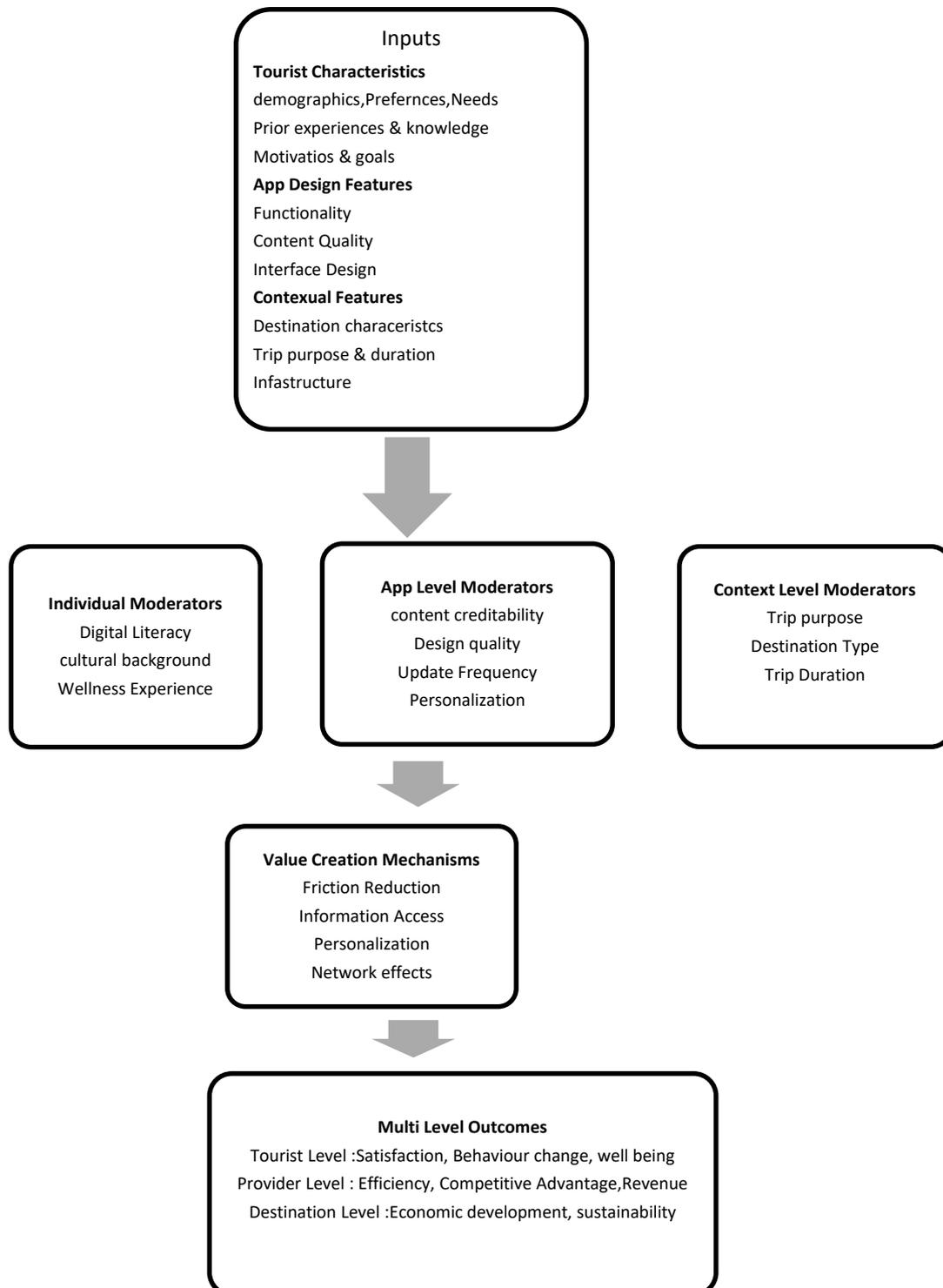


Figure 2: Four Dimensional Value Framework

The Four-Dimensional Value Framework explains that mobile apps create value in wellness tourism across **four distinct but interconnected dimensions**. Each dimension represents a different type of value that tourists seek and experience when using apps during their wellness journey. **Functional Value** means apps help tourists accomplish tasks efficiently. Without functional value, tourists won't adopt the app. For example if booking is complicated or information is inaccurate, nothing else matters. **Experimental Value** means apps make the wellness tourism experience more engaging and memorable. This dimension transforms apps from tools into experiences. It makes using the app enjoyable, not just functional. **Social Value** means apps connects traveller with others, creating community and belonging. The basis is social capital theory which explains that relationships and networks create value through information, support and collective action. **Transformational value** means apps facilitate lasting personal change and growth. This is the ultimate outcome of the wellness tourism.

A. Integrated Process Model**Figure 3: Integrated Process Model**

The Integrated Process Model in figure 3 illustrates how mobile apps create value in wellness tourism through a systematic flow from inputs to outcomes. It begins with **three types of inputs**: tourist characteristics (demographics, experience, motivations), app design features (functionality, content quality, interface), and contextual factors (destination type, trip purpose, infrastructure). These inputs are filtered through **three levels of moderators** that strengthen or weaken

relationships: individual moderators (digital literacy, cultural background, wellness experience), app-level moderators (design quality, content credibility, personalization accuracy), and context-level moderators (trip purpose, destination type, trip duration). When properly aligned, these inputs and moderators activate **four value creation mechanisms**: friction reduction (making access easier), information access (providing transparency), personalization (mass customization), and network effects (community value). These mechanisms then produce **multi-level outcomes** across three stakeholder groups: tourists benefit through satisfaction, behavior change, and improved well-being; providers gain operational efficiency, competitive advantages, and increased revenue; destinations achieve economic development and sustainability. The model emphasizes that app effectiveness depends on the right combination of user characteristics, app quality, and contextual conditions working together to activate value-creating mechanisms that produce benefits for all stakeholders in the wellness tourism ecosystem.

V. DISCUSSION

This conceptual review shows that mobile apps play a significant role in enhancing wellness tourism across the pre-trip, during-trip, and post-trip stages. The Three-Phase Temporal Journey Model demonstrates that apps support tourists before the trip by reducing search effort, improving decision-making, and building confidence. During the trip, apps enhance immersion through scheduling tools, navigation, activity tracking, and progress feedback, helping visitors actively participate in wellness activities. After the trip, apps encourage reflection, habit continuation, and long-term behavioral support, which are essential for sustaining wellness outcomes.

The Four-Dimensional Value Framework further clarifies how apps create value. Functional value ensures basic usability, accuracy, and convenience, reflecting TAM's emphasis on usefulness and ease of use. Experiential value highlights enjoyment, personalization, and memorable experiences, aligning with Experience Economy Theory. Social value shows how community, peer support, and expert access strengthen relational ties, consistent with Social Capital Theory. Transformational value emphasizes long-term personal growth and behavior change, supported by Self-Determination Theory.

The Integrated Process Model shows that the effectiveness of these benefits depends on user characteristics, app design quality, and contextual factors. When all elements align, apps generate positive outcomes for tourists, service providers, and destinations. Overall, the discussion suggests that mobile apps act not just as tools but as continuous support systems that enhance wellness experiences and contribute to sustainable behavior change.

VI. CONCLUSION

This study concludes that mobile apps significantly support wellness tourism by improving preparation, enhancing real-time experiences, and encouraging post-trip wellness continuity. Through the integration of multiple theories (TAM, Experience Economy, Social Capital Theory, and SDT), the review shows that apps create functional efficiency, richer experiences, social connection, and long-term personal transformation.

The models presented in this paper highlight that mobile apps offer value beyond traditional tourism services by extending engagement before and after the trip. Their effectiveness depends on the interaction between user factors, app design, and destination context. Overall, mobile apps serve as powerful tools that improve satisfaction, support wellness goals, and strengthen the competitiveness of wellness tourism destinations.

Future research may test these conceptual relationships empirically, explore cultural differences, or examine how new technologies such as AI, wearables, and VR further shape wellness tourism.

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