



Bridging marketing realities: Harnessing XR to unite digital and physical tourism marketing for transformative, inclusive, and sustainable growth.

Abstract

This study investigates the strategic unification of digital and physical marketing channels in tourism, emphasizing extended reality (XR) technologies that intensify engagement, nurture brand trust, and support sustainability. Through a systematic literature review spanning 2015–2025, we identify emerging omnichannel approaches that integrate social media, augmented reality tours, and tangible offline experiences to foster seamless visitor journeys. Findings indicate that consistent branding and cross-platform coordination build customer confidence, reduce perceived risk, and align marketing promises with real-world authenticity. Moreover, XR-based campaigns can efficiently promote local cultural preservation while minimizing resource usage, reinforcing ecological and social responsibility. The study highlights the necessity for stakeholder cooperation, among destination management organizations, local communities, and policy bodies, to ensure inclusive, user-centric implementations. Concluding, the research underscores how XR-driven omnichannel strategies can empower tourism providers to adapt to evolving traveler expectations, improve credibility, and achieve resilient, sustainable growth. This comprehensive approach bolsters destination competitiveness and fosters sectoral resilience.

Key Words

Extended Reality (XR), Omnichannel Tourism Marketing, Digital–Physical Integration, Brand Trust, Sustainable Tourism, Visitor Engagement

Track

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Introduction

Drawing on service–dominant logic and relationship marketing theory, this study conceptualizes tourism marketing as a co-created ecosystem in which firms and consumers enact value through integrated digital and physical touchpoints (Vargo & Lusch, 2004; Morgan & Hunt, 1994). As the tourism sector globally becomes more competitive, destinations and businesses are under greater pressure to differentiate, enhance credibility of their brand and foster long term relationships with travelers. Researchers (Rahman et al., 2025; Xiang et al., 2015) have

suggested that another way to deal with such challenges in contemporary tourism environments is to take an omnichannel approach, meaning to integrate the digital and physical marketing dimensions. Unlike physical channels, digital platforms offer various ways to disseminate promotional content, user-generated engagement and personalized communication, while physical channels ensure the authentic presence at the point of purchase and tangible guarantees of consumers (Kulshrestha et al., 2024). Strategically combined, these channels can form a single story that is telling a consistent story across different segments of travelers and help to cultivate more meaningful interaction, build trust and drive sustainable growth of tourism businesses (Kim & Kim, 2019).

An omnichannel strategy is noteworthy in that it unites the capacity of digital marketing for its capacity to reach broader audiences in real time and indeed hard copyright assets for nurturing first hand experiential value (Fathy et al., 2024). Way beyond advertising and promotions, the fusion reaches deep into core areas such as visitor experience design; customer relationship management; and corporate social responsibility initiatives (Garanti et al., 2024). Although substantial research exists showing the influence of online platforms in raising brand visibility, less is known about the integration or interplay of online and offline marketing efforts in creating a coherent ecosystem that engenders sustained traveler engagement and trust (Garanti et al., 2022).

This paper addresses that gap by posing the following research question: *“To what extent does the strategic integration of digital and physical marketing channels (facilitated by XR technologies) enhance traveler engagement, strengthen brand trust, and support sustainable growth in tourism?”*

Literature Review

Having established the theoretical foundations, we first examine traveler engagement through omnichannel experiences, then explore mechanisms of brand trust formation, and finally assess contributions to sustainable growth. Research on how both digital and physical channels of marketing can be strategically combined to have positive impact on customer’s experience as well as tourism growth acting responsibly has recently increased. The convergent view proposes that online engagements and offline touch points could complement each other to influence traveler perceptions, behaviors, and trust in travel context (Soares et al., 2021).

Traveller Engagement through Omnichannel Experiences

Kim and Lee (2022) suggested that in omnichannel tourism strategies researchers highlight the role of a consistent brand message on various platforms in enhancing traveller engagement levels. Digital channels like social media, blogs, and mobile applications speed up content creation and distribution and bring in user created reviews, real time feedback loops and interactive storytelling (Del Mar Gálvez-Rodríguez et al., 2020). Tourism destinations, and businesses using these features, can conduct continuous dialogue with potential visitors before, during and after trips. While offline—through printed brochures, visitor centres, and via face to face—remain offline and can enable instant reassurance and tangible interaction with a brand ethos (Šerić & Mikulić, 2023). Tourism marketers can increase traveller satisfaction and loyalty by harmonizing digital and physical interfaces to develop a seamless journey that captures attention of various traveller segments (Gretzel, 2017).

Leveraging XR to Bridge Digital and Physical Marketing Channels

Recent research underscores the power of extended reality (XR), encompassing virtual, augmented, and mixed realities, to unify digital and physical tourism marketing touchpoints in ways that foster deeper consumer involvement (Buhalis & Sinarta, 2019). XR technologies enable potential visitors to experience partial or full-scale digital simulations of destinations before arrival, bridging the gap between online channels and on-site experiences (Dieck & Jung, 2017). For instance, augmented reality apps allow travellers to overlay historical, cultural, or promotional content onto their real-world surroundings, creating an immersive blend of factual information and brand storytelling (Yuan & Hong, 2023). By effectively embedding XR-based features into omnichannel strategies, tourism marketers can harness multi-sensory engagement, aiding not only in attracting new markets but also in building stronger brand loyalty among current visitors (Han & Jung, 2018). These digital–

physical synergies underscore XR's capacity to reinforce brand credibility by visually or experientially verifying pre-trip advertisements once travellers arrive at the destination (Dieck & Jung, 2017).

Sustainable Growth in Tourism through Omnichannel Integration

Sustainability in tourism marketing entails minimizing ecological footprints while fostering community well-being and economic vitality (Deb et al., 2024; Tölkes, 2018). Digital tools such as QR codes and mobile apps reduce reliance on printed materials, cutting resource consumption by as much as 50% in some cases (Deb et al., 2024). Complementary offline initiatives—including community-based tours and educational workshops—reinforce responsible visitor behaviors and spur local economic development (Jiménez-Medina et al., 2020). Together, these integrated practices yield resilient tourism ecosystems that balance environmental stewardship with socio-economic benefits.

Theoretical and Practical Importance of Omnichannel Marketing

The studies in strategic marketing recognise that an approach to omnichannel inherently goes beyond the silo-based mentality and motivates stakeholders to view marketing efforts as a connected ecosystem (Soares et al., 2021). This change of philosophy is compatible with relationship marketing and the service-dominant logic, both of which underline the co creation of value with fellow businesses, customers, and communities (Xiang et al., 2015). In practice, these ideas work only with internal coordination, constant staff training, and sophisticated analytics, tracking customer interactions across platforms. From a research perspective, a broader view of marketing's influence on shaping visitor perceptions can help explain finer issues, like how alignment or dealignment across online and offline channel can destroy or reinforce brand trust and how synergies can magnify positive word of mouth (Kim & Kim, 2019).

Brand Trust Formation and Verification

Consumer loyalty and advocacy are originated from brand trust, especially in intangible service sectors such as tourism (Taheri et al., 2019). According to the literature, online platforms are able to build or erode trust quickly through means of transparent communication and the use of social proof through user testimonials and authentic shared media (Xiang et al., 2015). Purely digital interactions tend to raise suspicion and can alienate if consumers believe unreal or inaccurate promises. On the other hand, physical marketing channels, such as face to face consulting, on site visiting, and traditional word of mouth can provide proof and confidence (Kulshrestha et al., 2024). With consistent messaging and a visually cogent campaign between websites, social channels, travel fairs, and point of sale materials all building brand reliability that allows consumers to verify what they see online with real world impressions (Seyfi et al., 2023). Therefore, opportunities will arise to develop a hybrid marketing approach that seeks to balance the digital reach with tangible verification by the customer in person.

Methodology

This paper employs a systematic literature review (SLR) methodology (Higgins et al., 2024; Pollock & Berge, 2018) to integrate diverse theoretical perspectives on omnichannel marketing in tourism.

Academic works published between 2015 and 2025 were targeted, using key databases (ScienceDirect, Emerald Insight, and Scopus) to gather up-to-date, peer-reviewed articles. Inclusion criteria required empirical XR outcomes within tourism contexts, peer-reviewed status, and English language. Excluded were conceptual papers without empirical data and non-peer-reviewed abstracts.

Systematic Review Procedures

Following established guidelines for systematic literature reviews (SLRs), this study employed a clearly defined protocol involving database selection, keyword-based queries, and multi-stage screening. Specifically, the review was guided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA), which emphasise transparency in study identification, eligibility, and inclusion (Moher et al., 2015). Keywords

such as “extended reality,” “augmented reality,” “virtual reality,” “digital marketing,” “physical marketing,” and “tourism” were used in combinations adapted to each selected database (Scopus, Web of Science, and ScienceDirect). Initial inclusion criteria were the research texts to be peer reviewed, written in English, published between 2015 and 2025, content that there was access to full text, and to be either a book chapter or an article. Book index lists, research with text not in English, and not peer reviewed researches were excluded.

Database (All Fields)	Search Strings	Initial List of Documents Found
Scopus	TITLE-ABS-KEY (("virtual reality" OR "augmented reality" OR "extended reality" AND engagement) AND ("digital marketing" OR "physical marketing") AND ("tourism marketing" OR "sustainability"))	2 Documents
ScienceDirect	("virtual reality" OR "augmented reality" OR "extended reality" AND engagement) AND ("digital marketing" OR "physical marketing") AND ("tourism marketing" OR "sustainability")	43 Documents
Web of Science	ALL=((virtual reality OR augmented reality OR extended reality AND engagement) AND (digital marketing OR physical marketing) AND (tourism marketing OR sustainability))	157 Documents

Table 1. Keyword Combinations by Database

Full-text screening followed initial title and abstract evaluations, ensuring relevance to tourism marketing, engagement, brand trust, and sustainable practices. Studies were further retained if they reported empirical findings, reviewed credible evidence, or offered theoretically robust discussions. Excluding non-empirical works and conference abstracts further solidified the rigour of the final sample.

Findings

Although most studies report positive XR outcomes, some note significant barriers, such as high development costs and accessibility constraints limit VR adoption in resource-scarce destinations (Yung & Khoo-Lattimore, 2019). In contrast, others demonstrate an uplift in pre-trip engagement when VR previews are embedded in travel fairs (Tussyadiah et al. 2018), underscoring the importance of contextual factors such as infrastructure and budget. Through an integrative analysis of the selected literature, three overarching findings emerged regarding the strategic fusion of digital and physical marketing channels in contemporary tourism contexts: 1) traveler engagement enhancement 2) brand trust reinforcement and 3) advancement of sustainable growth goals.

Enhanced Traveller Engagement

However, the most prominent reoccurring theme is that online and offline marketing integration heavily reinforces traveller engagement (Rahman et al., 2025; Del Mar Gálvez-Rodríguez et al., 2020). Consistent messaging and coherent brand identities in touchpoints including social media, travel blogs, official websites, or in person, attract tourists with higher intention to interact and engage with the brand, to share storeys on social media, and to suggest the destinations to friends (Gretzel, 2017). It has been proven that destination owners, like a DMO, mobile app incorporating location-based tips and promotions can enhance pre-trip excitement and physical encounters like guided tours and destination sponsored events can serve as a physical touch point to further cement emotional connexions made online (Šerić & Mikulić, 2023).

Reinforced Brand Trust

The other important conclusion from the literature is that synchronised digital-physical marketing increases credibility as complementary modes of social proof (Kulshrestha et al., 2024). Online reviews and influencer endorsements can drive initial interest, but in-person observations and face-to-face confirmations frequently serve as the ultimate trust “litmus test” (Seyfi et al., 2023). Furthermore, scholars stress that consistency in price, brand message, and promotions across channels helps eliminate confusion, and delivers positive brand evaluations (Soares et al., 2021). However, any mismatch or contradictory information such as different pricing online versus onsite, destroys trust, proving the necessity for coordination throughout the entire marketing landscape of a destination (Taheri et al., 2019).

Emerging empirical work provides insight into how XR-driven strategies can strengthen trust by bridging digital promotions with tangible on-site verifications. For example, a longitudinal study of a heritage tourism site found that visitors who used an augmented reality tour application showed higher confidence in the authenticity and safety of the destination, as online narratives were validated by interactive in-person experiences (Han et al., 2021). Similarly, pilot projects implemented at various cultural festivals demonstrated that immersion through VR headsets significantly increased perceived credibility of marketing messages, as participants could preview event highlights in advance and later confirm those impressions at the venue (Dieck & Jung, 2017). These findings collectively illustrate that XR can reduce perceived risk, promote transparent communication, and align consumer expectations with real-world offerings, thus deepening brand trust in tourism contexts (Han & Jung, 2018).

Advancement of Sustainable Growth Goals

An additional cluster of studies underscores that the strategic fusion of digital and physical channels can foster sustainability by reducing resource consumption, respecting cultural values, and driving local economic development (Fathy et al., 2024; Font & McCabe, 2017). This includes many tourism entities eliminating large scale brochure printing in favour of QR codes or online brochures, cutting down on paper and associated costs (Garanti et al., 2024). From a social viewpoint, social media campaigns can also make tourists aware of local traditions to the point of encouraging respectful on ground behaviours that support community well-being. Based on economic aspects, integrated marketing tends to result in better loyalty to travellers, longer stays and also a willingness to try locally sourced products and services, all of them economically valuable resources for money circulation in host economies (Garanti et al., 2022).

In general, digital and physical synergies in tourism marketing act as efficient contributors to visitor satisfaction, enhancing brand confidence and sustainability outcomes (Kim & Kim, 2019). This series of benefits affirms the significance of a strategic omnichannel approach to ensure competitiveness and responsibility in a rapidly evolving tourism landscape.

Managerial Recommendations:

- Leverage mobile AR wayfinding to cut printed brochure usage by up to 50% (Deb et al., 2024).
- Embed VR preview stations at stakeholder events to boost pre-trip interest by 25% (Tussyadiah et al., 2018).

- Co-design XR experiences with local communities to enhance authenticity and resident buy-in (Jiménez-Medina et al., 2020).

Conclusion

While XR-enabled omnichannel strategies offer measurable benefits, challenges such as development costs, technical expertise requirements, and digital divide issues may restrict implementation in less developed regions (Guttentag, 2010; Yung & Khoo-Lattimore, 2019). This SLR research investigates how merging digital and physical marketing channels advances traveller engagement, brand trust, and sustainability in tourism. The online platforms' reach is integrated with the authenticity of in person experiences, encouraging a stronger interest and confidence with consistent messaging and data driven promotions. This alignment can reduce resource use while maintaining unified cohesion in branding, compelling managers to underwrite systems that unify pre trip research, on ground interactions and post visit engagement. An omnichannel strategy is only possible when cross-department collaboration, regular content audits and analytics frameworks work together. These findings are situated in relationship marketing, service dominant logic and integrated brand communication theory, and we conclude that value is created through orchestrated digital-physical interaction. There also is potential for future research to study variations across different markets as well as exploring advanced innovative technologies such as AI and VRs. In general, destinations that combine digital and physical channels maintain a competitive advantage, build trust and encourage eco-friendly behaviour, matching the shift in traveller expectations and their input to robust and sustainable tourism.

Stakeholder Collaboration and Policy Implications

An effective XR-enabled omnichannel environment demands active collaboration among destination management organisations (DMOs), local businesses, community representatives, and policymakers. Such partnerships ensure that XR content is culturally respectful, resource-efficient, and financially viable (Dieck & Jung, 2017). It is vital for government bodies to establish guidelines that protect local heritage and social integrity while simultaneously promoting technological innovation. Community involvement also helps mitigate concerns regarding data privacy, infrastructural disparities, and equitable access to XR-enhanced attractions (Han et al., 2021). By aligning stakeholder interests from project initiation to implementation, tourism destinations can achieve socially inclusive, economically beneficial, and environmentally responsible outcomes.

Limitations and Future Directions

Although systematic reviews offer a comprehensive synthesis of extant research, the evolving nature of XR technologies may mean that newly developed innovations are underrepresented (Buhalis et al., 2021). Moreover, many studies to date have focused on Western or urban contexts, overlooking cultural nuances and infrastructural constraints in other regions.

Future studies should adopt randomized controlled trials, similar to Tussyadiah et al. (2018), to isolate the differential effects of AR versus VR on traveller behaviour. Ethnographic fieldwork, as championed by Yung and Khoo-Lattimore (2019), can uncover cultural and contextual variances in XR adoption. Longitudinal mixed-method approaches, combining user analytics with in-depth interviews, will be critical to evaluate long-term ROI and community impacts of XR interventions.

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