

ENHANCING SAIGON RIVER TOURISM THROUGH AI-DRIVEN PERSONALIZATION AND NOSTALGIC MARKETING: CHALLENGES AND OPPORTUNITIES

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Abstract

Urban rivers contribute significantly to the environmental, cultural, and economic fabric of cities worldwide. In the case of Ho Chi Minh City, the Saigon River remains an underleveraged resource for tourism despite its strategic location and rich heritage. With the rise of experiential tourism that emphasizes emotional engagement and advanced technology, this study explores the potential of combining Artificial Intelligence (AI) and nostalgic marketing to redefine the Saigon River tourism landscape. AI technologies enable visitor experiences by delivering customized interactive content alongside nostalgic marketing strategies that use collective memories to create stronger emotional connections with destinations. This research identifies current shortcomings in implementing these approaches throughout Vietnam's urban river tourism industry and develops a strategic framework that unites both elements. The paper conducts analysis of present challenges and opportunities to develop practical recommendations for building a sustainable river tourism product that matches modern global market trends.

Keywords: Artificial Intelligence, Nostalgia Marketing, Tourism, Saigon River, Vietnam.

1. INTRODUCTION

Modern cities derive their identity and economic growth and ecological health from their urban rivers. These multifunctional areas provide ecological value and function as essential cultural pathways and recreational spaces for people living in cities (Knez & Eliasson, 2017). In Southeast Asian megacities such as Ho Chi Minh City, the Saigon River is an essential urban asset, cutting through the heart of the city and carrying with its centuries of history, culture, and socio-economic transformation. However, despite this geographical centrality and cultural richness, the Saigon River has not been fully harnessed as a tourism destination. With global tourism trends shifting toward immersive, emotionally resonant, and technology-enhanced experiences (Neuhofer, Buhalis, &

Ladkin, 2015), integrating Artificial Intelligence (AI) and nostalgic marketing emerges as a viable and strategic pathway. While AI enables real-time personalization, dynamic content delivery, and operational efficiency, nostalgic marketing taps into collective memory and identity to build deep emotional connections with place (Muehling & Sprott, 2004; Tussyadiah, 2020). This dual strategy has been underexplored in Vietnam's tourism literature and practice, especially in the context of urban riverfronts. Therefore, this research establishes a dual strategy to enhance Saigon River tourism through theoretical and practical recommendations. The paper develops its foundation through conceptual development followed by an evaluation of Saigon River tourism limitations before presenting strategic recommendations that use AI technology and nostalgia-based approaches.

2. LITERATURE REVIEW

Artificial Intelligence in Tourism

Artificial intelligence (AI) enables tourism services to deliver deeply personalized experiences. By analyzing vast amounts of tourist behavioral data, AI systems can generate tailored recommendations - such as personalized itineraries and product suggestions—and enhance service productivity (Nugroho, Priyanto, & Purnama, 2024). AI-driven platforms like chatbots or virtual assistants offer real-time consultation and resolution of queries, while big data analytics is used for customer segmentation. Research has shown that AI facilitates hyper-personalized experiences, increasing tourist satisfaction and loyalty (Ferhataj, 2024). For instance, a travel application that integrates GPT-4 with generative AI was developed to allow tourists to select destinations and narrative genres for cultural tours, offering immersive, image-enhanced storytelling tailored to each individual (Ferracani et al., 2024).

Nostalgia Marketing and Emotional Engagement

Nostalgia marketing evokes past memories and emotional connections to foster consumer empathy. In tourism, "nostalgia tourism" allows travelers to reconnect with past moments and local cultural identities. Studies indicate that nostalgic travel experiences not only enhance authenticity but also contribute to the preservation of local heritage (Moreno, Forero, García Revilla, & Martínez Moure, 2024). Destination advertising that leverages nostalgia tends to stimulate a "sense of history" in tourists, thereby increasing visitation intent (Su, Ye, & Huang, 2024). In contrast, modern non-nostalgic advertisements often emphasize current trends or "fashion sense." Integrating nostalgic elements thus helps build emotional bonds, evoking memories of the past and enhancing the attractiveness of tourism products. Combining nostalgia with travel experiences fosters a sense of belonging, thereby improving happiness and satisfaction levels.

Personalized and Emotion-Driven Experiences

Tourism is fundamentally an emotional journey, and the more personalized the experience, the deeper the emotional impact. Personalization allows services to be tailored to individual tourist preferences—such as customized itineraries or relevant

activity suggestions—which often leads to increased loyalty (Nugroho et al., 2024). The marketing approach of nostalgia targets positive emotional responses through familiar feelings and warm heritage pride. Tourists receive customized services through these combined elements while experiencing historical and cultural immersion. The approach supports experience economy and engagement marketing theories because it focuses on emotional connections and individualized tourist behavior. AI systems enable large-scale personalized operations and automated services yet nostalgia marketing builds emotional bonds with cultural heritage. The combination of these approaches will transform tourism into distinctive and unforgettable travel experiences.

Artificial Intelligence and Nostalgic Marketing Integration Model in Tourism

The tourism sector implements AI and nostalgic marketing through three fundamental dimensions. AI technologies enable digital restoration and preservation of historical and cultural content to reconstruct memories which enables tourists to experience nostalgic settings through visually immersive ways (Wang et al., 2021). AI analyzes tourist preferences and behavioral patterns to deliver customized content which enhances individual engagement with nostalgic elements according to Tussyadiah (2020). The combination of augmented reality (AR) and virtual reality (VR) technologies enables interactive enhancement which allows tourists to experience dynamic real-time historical narratives and spaces for stronger emotional destination connections (Neuhofer et al., 2015).

3. RESEARCH METHODS

The research uses qualitative methods to evaluate how AI integration with nostalgic marketing approaches can boost cultural tourism experiences in the Saigon River corridor. The research consists of three stages which start with an extensive review of domestic and international scholarly works about AI tourism applications and nostalgic marketing concepts and cultural tourism experience theories. The study analyzes secondary data from industry reports and scientific publications and media data and prior research about Saigon River tourism development to identify current trends and unused opportunities and existing challenges. The research combines theoretical frameworks with practical realities to identify existing gaps before proposing strategic directions for developing unique tourism experiences.

4. CURRENT STATUS OF SAIGON RIVER TOURISM

In recent years, Ho Chi Minh City has intensified its efforts to develop river tourism, although current performance still falls short of set objectives. According to the Ho Chi Minh City Department of Tourism, the city welcomed around 500,000 river tourists annually during 2023–2024, generating over 300 billion VND in revenue, with an expected annual growth rate of 10% (Binh, 2023). Approximately 100,000 international visitors arrived via cruise ships, representing an annual increase of 12–15% (Vietnam Government Portal, 2025). The city aims to fully exploit all Saigon River routes within its jurisdiction and surrounding areas by 2025 and to establish river tourism as a distinctive

product by 2030. Several new products have been introduced. During Ho Chi Minh City Tourism Week 2023, the Department of Tourism launched 17 river tour routes, including 7 regular and 10 newly designed ones (Binh, 2023). Four medium-range routes connecting Ho Chi Minh City with Bình Dương and Đồng Nai, featuring golf course stops, were also introduced. The city plans to add 5–10 new products by 2025 and targets a 10–15% increase in river tourist arrivals. Over 10 new transport vessels are projected to be developed, along with surveys for new river routes linking Ho Chi Minh City with provinces in Southeast Vietnam and the Mekong Delta (Vietnam Government Portal, 2025). The market response has been promising, during the 2023 Water Festival—the first of its kind in Ho Chi Minh City - nearly 100,000 domestic and 54,000 international tourists participated within just three days. Hotel occupancy rose by 15% (Ha, 2024). River-based performances such as "The River Tells Its Story" Left strong impressions. Just a short walk to the pier in the city center offers tourists a refreshing experience in contrast to the urban hustle. This demonstrates the significant potential of river tourism for both domestic and international markets. Another example is the Memories of Saigon Rangers tour, which combines historical narratives, real-life locations, and interactions with witnesses of wartime events. Locations such as secret bunkers, the “Đồ Phủ Café”, and the “Biệt động Sài Gòn Museum” provide a vivid, emotional connection to the city’s past (Ho Chi Minh City Tourism, 2022). However, while these nostalgic experiences are gaining traction, most current models still rely on traditional methods and have not fully integrated advanced technologies. The absence of AI-based solutions limits opportunities for personalized storytelling, multilingual access, and dynamic interaction—factors increasingly expected by modern tourists (Buhalis & Law, 2008; Gretzel et al., 2020). Successful examples from other contexts—such as "Time Travel Rome" or Hội An’s lantern nights—demonstrate the power of nostalgic marketing when enhanced with AR/VR or AI tools (Kim & Youn, 2017; Tussyadiah et al., 2018). Despite positive signals in both visitor numbers and product diversification, Ho Chi Minh City’s River tourism development still faces several critical limitations. These challenges stem not only from infrastructural constraints but also from conceptual and technological gaps that hinder the creation of truly distinctive and future-ready experiences:

Traditional Experience Models Amid Evolving Tourist Expectations

Although the city launched 17 river tour routes and welcomed approximately 500,000 visitors in 2023–2024, most products remain grounded in traditional formats—fixed routes, static narration, and manual tour guiding. In the context of a rapidly digitizing global tourism market, such models fall short of delivering the dynamic, interactive, and personalized experiences that modern travelers expect. The lack of AI-enabled features—such as real-time itinerary customization, multilingual virtual guides, or interactive storytelling—limits the sector’s ability to differentiate itself or scale meaningfully.

Nostalgic Content Underleveraged Due to Technological Absence

Experiences like the Memories of Saigon Rangers tour have demonstrated the emotional resonance of nostalgia-based tourism. However, these products currently rely on face-to-

face storytelling and physical site visits, which restrict accessibility, interactivity, and retention—especially among younger, tech-savvy audiences. While other destinations have successfully merged historical narratives with AR/VR or AI-driven apps, Saigon River experiences remain analog, failing to unlock the full potential of the city's rich historical and cultural memory.

Event-Centered Thinking Without Long-Term Digital Infrastructure

The success of large-scale events like the 2023 Water Festival, which attracted over 150,000 participants in just three days, confirms the strong appeal of river-based tourism. However, these short-term programs are not yet supported by enduring digital infrastructure or AI-enhanced engagement strategies. Once the event ends, so too does the momentum. Without sustained, technology-driven touchpoints that continue the visitor journey—such as smart apps, virtual exhibitions, or personalized follow-ups—these successes remain ephemeral rather than transformative.

Limited Data-Driven Decision Making

Ho Chi Minh City faces a major challenge because it lacks powerful AI systems for processing and analyzing visitor data during river tourism development. The current implementation of advanced monitoring technologies for tourist preferences and behaviors and feedback collection in real time remains very limited. Tourism authorities together with businesses face major limitations in market trend prediction and service customization because they depend on traditional assumptions and static data instead of real-time visitor insights.

The absence of data-backed insights prevents the optimization of tour routes and product diversification and marketing campaign customization from becoming strategic and proactive initiatives. The absence of data-driven decision-making tools puts Ho Chi Minh City at a competitive disadvantage because it fails to capitalize on valuable growth opportunities in the tourism industry.

Short-Term Programming Vs. Long-Term Strategy

The 2023 Water Festival along with other flagship events prove the potential of river-based tourism but they operate independently from a comprehensive sustainable development strategy.

The current programs focus on events and seasons which produce short-lived visitor interest without creating sustained visitor engagement.

The episodic approach creates a risk of losing momentum after events end which makes river tourism in the city both fragmented and sensitive to visitor number changes.

A visionary strategy with technological support must be developed to convert successful moments into a unified and developing tourism system. A strategic plan must integrate innovation with cultural preservation and market responsiveness as its fundamental elements.

5. DISCUSSION

This study combines AI and nostalgic marketing as an integrated approach to improve the river tourism experience in Ho Chi Minh City. The findings of the study not only strengthen some theoretical views but also clarify new context characteristics in local conditions.

First of all, in accordance with previous studies, AI enhances tourist interaction via deep personalization and interactive content (Nehofer et al., 2015; Gretzel et al., 2020). However, its use in Vietnam's urban river tourism remains limited, highlighting the need for both technological investment and institutional collaboration to build scalable AI-driven platforms.

Secondly, the research results also support the previous works (Muehling & Sprott, 2004; Su et al., 2024) on showing that tourism products based on memory are capable of evoking emotional resonance and improving authenticity. However, the current deployment in the Saigon River Tourism (despite rich content) is still mainly based on traditional stories. This is in contrast to the current global trend, where the nostalgic factor is enhanced digital through recreating the past space with virtual reality technology and role -playing storytelling (Ferracani et al., 2024; Wang et al., 2021).

Notably, this study connects the two areas that seem separate by showing AI and nostalgic not to eliminate each other but actually can combine harmoniously. While previous studies often consider them separately, this study proves the supplement between the two factors: AI allows to provide nostalgic content in real time, suitable for individual interests, while marketing is nostalgic to create an emotional foundation to improve personalization efficiency by AI. This integration approach is suitable for the experience of experienced economic model, emphasizing the combination of personalization, emotional depth and cultural identity.

Moreover, the challenges have been determined, such as limited number of infrastructure, focused on short-term events and lack of real-time data analysis system, emphasizing the need for a long-term strategy. Although events such as the 2023 waterway festival bring short-term communication effects, the sustainable development of tourism requires continuous interaction and smart data systems what has been mentioned in the text of the smart city and tourism innovation (Buhalis & Law, 2008; Gretzel and Sentiment, 2020).

Finally, the proposed model in this study solves an important gap in both theory and practice in the tourism development strategy in Vietnam. It offers a framework that can be applied at other cultural or river heritage destinations in Southeast Asia facing the tension between traditional conservation and modernization.

Subsequent studies can test this model experimental through case research, interviewing experts or creative tourist pilots to evaluate the effectiveness of implementation in practice.

6. RECOMMENDATIONS FOR INTEGRATING AI AND NOSTALGIC MARKETING INTO SAIGON RIVER TOURISM

Based on theoretical and practical analysis, research and propose an integrated model of AI and nostalgic marketing to improve personalized tourism experience on the Saigon River. This model clarifies the mutual relationship between three core elements: AI - Nostalgia - Tourism experience, and pointed out how they coordinated to create tourist journeys that are both high-tech and emotional. The following model illustrates the structure and operating mechanism of this model in the context of river tourism development in Ho Chi Minh City.

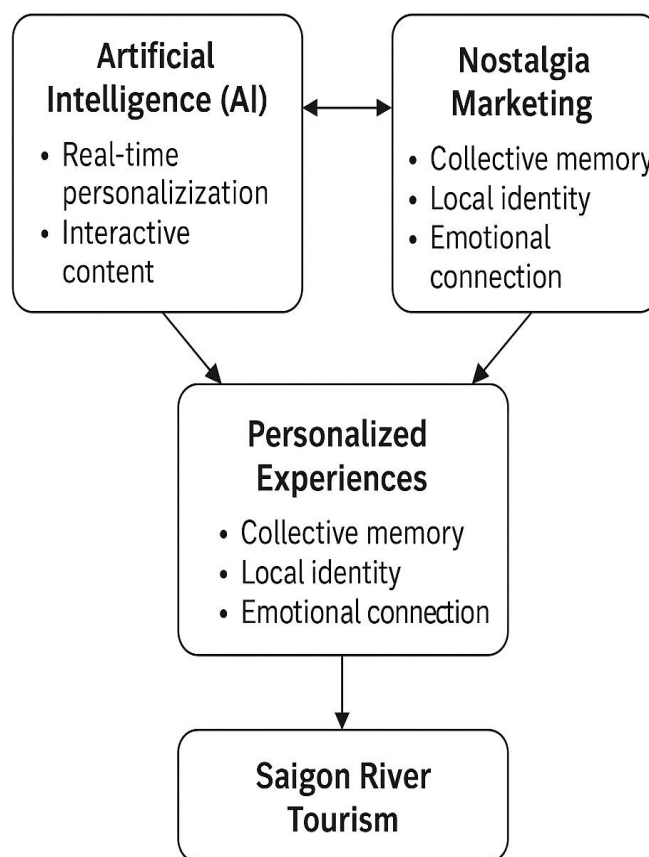


Figure 1: AI–Nostalgia–Personalization Integration Model (Proposed by the research team)

As previously outlined, although Ho Chi Minh City's River tourism has entered a new stage of growth, it still lacks foundational innovations to truly break through—especially as modern tourist expectations shift sharply toward personalization, technological interactivity, and emotional depth. Integrating AI with nostalgic marketing—reviving collective memory through modern technology—is not merely a trend but a transformative solution tailored to the cultural and historical fabric of a riverine metropolis. The following

four strategic solutions directly address the current limitations and present a sustainable development model for the city's river tourism sector.

Personalizing the Tourist Journey Through Artificial Intelligence

One of the most fundamental constraints in current river tourism models is the uniformity in tour formats, which are largely based on fixed itineraries and one-way narration. This results in a passive experience that struggles to foster meaningful engagement, especially among younger visitors who increasingly demand flexibility, interaction, and real-time content. To overcome this, the city should develop intelligent tourism platforms that integrate AI to enable travelers to curate their own personalized journeys—based on their preferences, available time, budget, or even emotional state. Such platforms could offer route suggestions and customized multilingual commentary through virtual guides or interactive chatbots. Leveraging machine learning, these systems would gradually "learn" user behavior to optimize content recommendations in subsequent visits. AI-based personalization delivers multi-dimensional experiences which helps expand international visitor numbers and builds an intelligent tourism system that connects local businesses with cultural sites and government agencies.

Digitally Reviving Urban Memory Through Augmented Reality/Virtual Reality and Virtual Historical Characters

The Saigon Rangers Memory Tour has proven successful because it uses nostalgia to bring back shared memories of war and urban life and local culture. The current experiences based on traditional site visits and live storytelling fail to reach their full immersive potential. Tourists today seek more than just listening to stories because they want to experience them firsthand. The combination of AR, VR and AI-generated historical avatars provides a powerful way to enhance visitor engagement.

The city should establish partnerships between museums and historical sites and tech companies to develop digital experiences that tourists can experience directly at their locations. Visitors can experience past scenes through mobile devices or AR glasses which recreate historical settings at present-day locations. AI-powered virtual characters including soldiers and civilians and journalists can appear in real time to share stories and answer questions while communicating in multiple languages. The tools enhance cultural value by creating a connection between historical heritage and digital-native generations which establishes memory-based tourism as a new market opportunity.

Sustaining Festival Impact Through Post-Event Digital Engagement

The 2023 Water Festival established Ho Chi Minh City River tourism as a major attraction through its creative programming yet the digital engagement strategy failed to sustain the momentum after the event ended thus reducing long-term investment returns. Thus, it is critical to extend the lifecycle of such events by developing a robust post-event digital platform that archives, reinterprets, and perpetuates festival experiences online.

The combination of filming signature performances and cultural showcases and interactive installations enables AI processing to generate 360-degree videos and virtual

tours and mini-games and interactive exhibits for official tourism websites. The AI customer relationship systems would deliver customized follow-ups and incentives and relevant content to previous event participants which would sustain brand engagement and encourage repeat visits. The city could establish a “digital memory archive” to build a participatory tourism community through visitor submissions of photos and reflections and stories about the event. The city would achieve successful short-term event hosting while building an active technology-based cultural heritage system around its main tourism attraction.

Data-Driven Intelligence for Adaptive Tourism Management

Ho Chi Minh City needs to establish an AI-based intelligent tourism management system that tracks visitor data continuously for data-driven decision-making. The system would merge data collection tools from tourism apps and social media platforms and IoT devices on boats and surveillance cameras to obtain detailed visitor insights about their behavior and preferences and their time spent and satisfaction levels. AI algorithms process this data to predict market trends and create customized visitor experiences while optimizing tour paths and adjusting operational schedules for various visitor demographics. Strategic decisions will become more accurate and responsive through enhanced data sharing between tourism authorities and operators and cultural sites within a unified ecosystem. The data-focused strategy will boost operational performance and establish Ho Chi Minh City’s River tourism as a contemporary adaptive competitive destination in the evolving market.

Sustainable Long-Term Strategy Through Digital Engagement

The current dependence on short-term event-based programming requires Ho Chi Minh City to develop a complete technology-based long-term strategy for river tourism development. A strategic plan should establish a continuous coordinated approach which advances past single festival events by creating diverse annual activities and recurring small-scale events and interactive experiential programs. Digital technologies need to record festival content and cultural performances for preservation through 360-degree videos and virtual reality experiences and online exhibitions. The extended visitor engagement through this method continues after festival events end which prevents momentum from disappearing. Through social platforms or apps dedicated to sustainable tourism the community will enable residents and tourists to exchange stories and photos and experiences which will maintain continuous interest and cultural exchange. Through strategic implementation of innovative cultural preservation methods Ho Chi Minh City can establish river tourism as a dynamic sustainable attraction which draws diverse visitors throughout the entire year.

7. CONCLUSION

River tourism in Saigon faces ongoing challenges because of product design limitations together with infrastructure issues and high costs. The academic literature shows that AI and nostalgia marketing work together as complementary tools because AI provides

scalable personalization and automation and nostalgia creates emotional connections and cultural depth. The development of competitive river tourism requires stakeholders to focus on themed storytelling tours alongside smart infrastructure development and cost optimization and emotion-rich personalization. The strategies find support from both international research and Ho Chi Minh City data and observations which establish a solid base for developing sustainable local tourism products.

Reference

- 1) Binh, N. (2023). River tourism attracts tourists but still faces obstacles. Tuổi Trẻ. <https://tuoitre.vn/du-lich-duong-song-hap-dan-khach-nhung-con-lan-dan-20231204210418452.htm>
- 2) Buhalis, D., & Law, R. (2008). Progress in information technology and tourism management: 20 years on and 10 years after the internet—The state of eTourism research. *Tourism Management*, 29(4), 609–623. <https://doi.org/10.1016/j.tourman.2008.01.005>
- 3) Ferhataj, A. (2024). AI-driven personalization in tourism: Analyzing sustainable travel preferences with machine learning. In 8th International Halich Congress (Istanbul). <https://www.researchgate.net/publication/387348197>
- 4) Ferracani, A., Bertini, M., Pala, P., Nannotti, G., Principi, F., & Becchi, G. (2024). Personalized generative storytelling with AI-visual illustrations for the promotion of knowledge in cultural heritage tourism. In SUMAC@ACM Multimedia 2024. <https://doi.org/10.1145/3689094.3689465>
- 5) Gretzel, U., Sigala, M., Xiang, Z., & Koo, C. (2020). Smart tourism: Foundations and developments. *Electronic Markets*, 30(1), 7–16. <https://doi.org/10.1007/s12525-019-00319-z>
- 6) Ha, M. (2024). Promoting waterway tourism. Thanh Niên. <https://thanhnienvn/day-manh-du-lich-song-nuoc-185240511234521445.htm>
- 7) Ho Chi Minh City Tourism. (2022). A series of ‘familiar yet surprising’ tours right in District 1. <https://visithcmc.vn>
- 8) Kim, J., & Youn, H. (2017). How nostalgia tourism works: Psychological mechanisms and outcomes. *Annals of Tourism Research*, 63, 156–168. <https://doi.org/10.1016/j.annals.2017.01.002>
- 9) Knez, I., & Eliasson, I. (2017). Relationships between personal and collective place identity and well-being in mountain communities. *Frontiers in Psychology*, 8, 79. <https://doi.org/10.3389/fpsyg.2017.00079>
- 10) Moreno, A. L. S., Forero, J. A. M., García Revilla, R., & Martínez Moure, O. (2024). Trends and perspectives of nostalgia in tourism: A systematic review and bibliometric analysis. *Sustainability*, 16(13), 5651. <https://doi.org/10.3390/su16135651>
- 11) Muehling, D. D., & Sprott, D. E. (2004). The power of reflection: An empirical examination of nostalgia advertising effects. *Journal of Advertising*, 33(3), 25–35. <https://doi.org/10.1080/00913367.2004.10639165>
- 12) Neuhofer, B., Buhalis, D., & Ladkin, A. (2015). Smart technologies for personalized experiences: A case study in the hospitality domain. *Electronic Markets*, 25(3), 243–254. <https://doi.org/10.1007/s12525-015-0182-1>
- 13) Nugroho, I. S., Priyanto, D., & Purnama, Y. (2024). Exploring the role of artificial intelligence (AI) in designing and optimizing personalization strategies to enhance customer experience in the tourism industry. *Technology and Society Perspectives (TACIT)*, 2(3), 292–298. <https://doi.org/10.61100/tacit.v2i3.247>

- 14) Su, L., Ye, C., & Huang, Y. (2024). Does destination nostalgic advertising enhance tourists' intentions to visit? The moderating role of destination type. *Tourism Management*, 100, 104810. <https://doi.org/10.1016/j.tourman.2023.104810>
- 15) Tussyadiah, I. P. (2020). A review of research into automation in tourism: Launching the Annals of Tourism Research Curated Collection on Artificial Intelligence and Robotics in Tourism. *Annals of Tourism Research*, 81, 102883. <https://doi.org/10.1016/j.annals.2020.102883>
- 16) Tussyadiah, I. P., Wang, D., Jung, T., & tom Dieck, M. C. (2018). Virtual reality, presence, and attitude change: Empirical evidence from tourism. *Tourism Management*, 66, 140–154. <https://doi.org/10.1016/j.tourman.2017.12.003>
- 17) Vietnam Government Portal. (2025). Announcement of the 2025 river tourism product development plan. <https://tphcm.chinhphu.vn/cong-bo-ke-hoach-phat-trien-san-pham-du-lich-duong-thuy-nam-2025-101250505094640703.htm>
- 18) Wang, D., Li, X., & Li, Y. (2021). Tourism experience and digital transformation: Analysis of tourist experience design with virtual reality and artificial intelligence. *Journal of Destination Marketing & Management*, 19, 100552.