

A Review on the Deep Integration of Culture and Tourism Promoted by Big Data

Yue Li*

School of Business Administration, Guizhou University of Finance and Economics, Guiyang 550025, China

*Corresponding author: Yue Li, liyue5299@163.com

Copyright: © 2025 Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0), permitting distribution and reproduction in any medium, provided the original work is cited.

Abstract: Under the background of the digital era, the development of deep integration of culture and tourism promoted by big data has attracted more and more attention from the academic circle. This paper reviews relevant literature on the deep integration of culture and tourism promoted by big data. This paper summarizes the main topics of related research from the aspects of the relationship speculation and internal logic of cultural tourism, the integrated development of the cultural tourism industry enabled by digital technology, and the application of big data to promote the deep integration of cultural tourism. Combined with the above development trends, this paper proposes the research prospect of promoting the deep integration of cultural tourism in the digital era from the aspects of basic concept research, research content, and research methods.

Keywords: Cultural and tourism integration; Culture and tourism; Big data

Online publication: January 23, 2025

1. Introduction

In the academic field of tourism, culture and tourism have always been the focus of academic discussion. From the 1980s, when Mr. Yu Guangyuan put forward “tourism is a cultural undertaking with a strong economy and strong cultural character”, to the current hypotheses such as “soul carrier theory”, “poetry and distance theory”, and “resource market theory”, all of them show the profound connotation of the integration of culture and tourism and reflect people’s longing for the beautiful tourism experience. The rapid development of the digital age provides a new development opportunity for the deep integration of culture and tourism. The pace of the integration of culture and tourism is accelerating and the field is expanding. The research topic of promoting the deep integration of culture and tourism with big data has attracted great attention from scholars. In line with the development trend of the digital age, this paper reviews and discusses the research progress of the deep integration of culture and tourism, and systematically summarizes the research perspectives, contents, and methods of the deep integration of culture and tourism promoted by big data, to provide reference for the relevant research on the integration of

culture and tourism, and provide decision-making reference for relevant departments in the aspects of digital culture and tourism and smart tourism.

2. Research topic of big data promoting the deep integration of culture and tourism

2.1. Research on the speculation and internal logic of the relationship between culture and tourism

In the 1980s, relevant scholars began to explore the relationship between culture and tourism, either regarding social culture as an important tourism resource or tourism itself as a kind of cultural life^[1-2]. Culture is one of the main content providers of tourism experience, and tourism is one of the most important sources of income for cultural institutions. The inseparable relationship between culture and tourism has been recognized by the academic community, and the two are closely linked in practice through cultural tourism, a clear form of consumption^[3-4]. With the deepening of research, relevant scholars have further deepened their understanding of cultural tourism from the aspects of cultural identity, region and field, and cultural space production. From the perspective of cultural identity, Zhang Zhaozhi proposed that the relationship between culture and tourism originates from individual tourists or the collective search for the cultural identity of a nation and a country^[5]. Based on cultural identity, Fu Caiwu proposed that individual tourists promote the organic connection between culture and tourism at the peak of cultural identity through cultural travel consumption behavior^[6]. Ma Yong et al. discussed the relationship between culture and tourism from the perspective of region and field and believed that inter-regional tourism flow is an important channel for cultural interaction and change, and cultural field is the spatial carrier of cultural and tourism integration, and tourism spatial carrier participates in the co-creation of cultural field^[7]. However, Chen Yining and Li Gang put the integration of culture and tourism in a broader perspective of spatial production, pointing out that spatial production is the carrier of culture and tourism and the basis of collaborative development^[8]. The understanding of the relationship between culture and tourism is a gradual deepening process, and the deep integration of cultural tourism is also a dynamic process. Cultural and tourism integration is not a simple combination of the two, but a deep integration in the fields of concept, function, industry, technology, and resources^[9]. Among them, cultural heritage tourism, cultural and creative tourism, and cultural and tourism integration and innovation practice in ethnic areas have gradually become one of the highlights of local economic growth^[10-12]. To achieve high-quality development of cultural and tourism integration, it is necessary to strengthen resource integration, promote product integration, strengthen channel integration, and explore institutional integration, to revitalize development and destination culture, to promote the transformation and upgrading, quality and efficiency improvement, and high-quality coordinated development of the two industries of culture and tourism^[13-15].

2.2. Research on the integrated development of cultural and tourism industry enabled by digital technology

The core of cultural and tourism integration is the comprehensive and deep integration of the cultural industry and tourism industry, and the strong industrial correlation and coupling between the cultural industry and tourism industry provide an opportunity for their deep integration^[16-17]. With the transformation and upgrading of digital technology, not only the new business forms of the cultural industry and tourism industry are booming, but also digital technologies represented by big data and blockchain provide new ideas and directions for the deep integration of the digital industry and cultural tourism industry^[18]. It has also spawned many new formats and

models of the cultural tourism industry, such as smart tourism, digital creativity, digital art display, and immersive experience ^[19]. Digital technology has promoted profound changes in the industrial chain from the supply side and the demand side, which not only changes the cognition and behavior of the demand side, but also changes the production and delivery mode of the supply side, and improves the efficiency of public services while improving administrative supervision methods ^[20-21]. To explore a new path for the integrated development of the digital cultural and tourism industry, it is still necessary to solve the problem of “supply and demand mismatch” ^[22]. On the supply side, it is necessary to take “content construction” as the core, achieve the coordination of digital technology and innovation, and ensure the supply of high-quality products and the improvement of the industrial chain. On the demand side, with “experience is king” as the development orientation, improve the immersive experience of digital cultural travel products. At the regulatory level, improve the laws, regulations, and policy system supporting the integration, coordination, and innovative development of the digital cultural and tourism industry ^[23].

2.3. Research on applying big data to promote the deep integration of culture and tourism

Big data is the theoretical support for the integrated development of culture and tourism, as well as the practical path. Big data technology, which enables innovation, constantly stimulates independent research and development and commercial innovation in the field of culture and tourism and becomes a realistic breakthrough in the integration of culture and tourism ^[24]. For example, the prediction of tourist volume based on Internet tourism data, the perception of tourism image based on Internet big data, and the efficient application of tourism big data in tourism crisis management are all effective ways for universities to fully utilize big data to promote the high-quality development of tourism ^[25-27]. However, in promoting the integrated development of culture and tourism, big data still faces problems such as a large urban-rural digital divide, prominent data island phenomenon, urgent need to strengthen tourism data security and privacy information protection, and lack of unified and standardized tourism information management platform ^[28-29]. Faced with these severe practical challenges, it is necessary to accelerate the improvement of the construction of big data platforms. Build a data sharing and collaboration mechanism for the tourism industry at the levels of enterprises, industries, departments, and regions, crack the phenomenon of data silos, and consolidate the foundation for the development of big data for cultural tourism ^[30].

2.4. Research review

The current academic research results have provided a good preliminary foundation and theoretical support in terms of speculation and internal logic of the relationship between culture and tourism, digital technology enabling the integration of cultural and tourism industries, and the application of big data to promote the integration of cultural and tourism development. First, the academic community has discussed the mutual relationship between culture and tourism from different perspectives and conducted extensive discussions on the internal logic and integration value of cultural and tourism integration. Second, digital technology enabling cultural and tourism integration has attracted wide attention from the academic circle. The development direction of cultural and tourism industry integration has been deeply discussed not only from the theoretical level but also from the application level. Third, the academic community explored the role and effectiveness of big data in promoting the integrated development of culture and tourism and carried out a detailed analysis of the shortcomings of big data applications.

However, the research on big data to promote the deep integration of culture and tourism still needs to be

further expanded. First, the theoretical logic of big data to promote the deep integration of culture and tourism still needs to be further elaborated. Second, there are few research results on how big data can promote the deep integration of culture and tourism, and no systematic explanation has been given on how to solve the mismatch between the supply and demand of cultural tourism based on big data in practical operation. Third, how to design the path system to ensure the high-quality development of deep integration of culture and tourism enabled by big data is a key issue that needs new thinking at this stage.

3. Research implications and prospects

Big data to promote the deep integration of culture and tourism is an inevitable requirement for the development of the digital era, and a new driving force to promote the high-quality development of cultural tourism. By reviewing and discussing the research progress of big data to promote the deep integration of culture and tourism, this paper finds that there are still some research deficiencies, and puts forward the following suggestions.

First, in terms of basic research, researchers should pay attention to the basic research of concepts and theories. A deep understanding of the connotation of the deep integration of culture and tourism and the theoretical logic of the deep integration of culture and tourism is the basis and premise for the academic circle to research the deep integration of culture and tourism. At the same time, because different scholars are facing different countries and national conditions, there are some differences in the basic definition of culture and tourism. Therefore, the academic community should pay attention to the research of basic theories and the analysis of basic concepts, and reach a unified and standard scientific definition as soon as possible, to enhance the academic value and authority of research results in culture and tourism.

Second, in terms of research methods, the research methods adopted by scholars should be mixed and diversified, and the research vision should be diverse and global. Tourism is a comprehensive subject, with the characteristics of interdisciplinary, in the process of research, psychology, geography, anthropology, sociology, and other disciplines can be integrated into tourism. Therefore, in the process of studying the deep integration of culture and tourism promoted by big data, diversified research perspectives and research methods should be adopted, and mixed research methods combining qualitative and quantitative methods should be used, to break the existing research bottleneck and find a breakthrough point in the research of cultural and tourism integration.

Third, in terms of research content, the research on promoting the deep integration of culture and tourism with big data needs to focus on solving the problem of data barriers in the traditional cultural and tourism industry. By building a big data platform, the flow of data elements in the cultural and tourism industry can be smooth and the dilemma of “data island” can be solved. At the same time, how to enhance the actual value and application space of big data technology in the cultural and tourism industry is also worth further exploration. In addition, it can also conduct multidimensional analysis and summary of typical cases of deep integration of culture and tourism promoted by big data, to provide reference and reference for the deep integration of culture and tourism to achieve high-quality development.

Funding

Guizhou University of Finance and Economics Student Scientific Research Project “Research on the Systematic Path of the Development of Health Tourism Industry in Ecological Resource Endowment Villages” (Project No.: 2024ZXSY003)

Disclosure statement

The author declares no conflict of interest.

References

- [1] Lu LD, Zheng F, 1986, Social Culture is an Important Tourism Resource. *Social Science*, 1985(6): 39–44.
- [2] Yu GY, 1986, Tourism and Culture. *Outlook Weekly*, 1986(14): 35–36.
- [3] Richards G, 2019, Culture and Tourism: Natural Partners or Reluctant Bedfellows? A Perspective Paper. *Tourism Review*, 75(1): 232–234
- [4] Richards G, 2018, Cultural Tourism: A Review of Recent Research and Trends. *Journal of Hospitality and Tourism Management*, 2018(36): 12–21.
- [5] Zhang ZZ, 2018, How to Integrate Culture and Tourism: From the Perspective of Identity. *Nanjing Social Sciences*, 2018(12): 162–166.
- [6] Fu CW, 2019, On the Internal Logic of the Integration of Culture and Tourism. *Journal of Wuhan University (Philosophy and Social Sciences Edition)*, 73(2): 89–100.
- [7] Ma Y, Tong Y, 2019, From the Region to the Field: A Reunderstanding of the Relationship between Culture and Tourism. *Tourism Tribune*, 34(4): 7–9.
- [8] Chen YN, Li G, 2019, The Relationship between Culture and Tourism from the Perspective of Spatial Production: A Case Study of British Museums. *Tourism Tribune*, 34(4): 11–12.
- [9] Fan Z, 2019, The Theory and Practice of Cultural and Tourism Integration. *Academic Frontiers of People's Forum*, 171(11): 43–49.
- [10] Ebejer J, 2019, Urban Heritage and Cultural Tourism Development: A Case Study of Valletta's Role in Malta's Tourism. *Journal of Tourism and Cultural Change*, 17(3): 306–320.
- [11] Blapp M, Mitas O, 2018, Creative Tourism in Balinese Rural Communities. *Current Issues in Tourism*, 21(11): 1285–1311.
- [12] Lu YX, 2022, Exploration on the Development Path of Ethnic Cultural Resources Embedded in Tourism Industry — A Case Study of Heilongjiang Province. *Heilongjiang Ethnic Series*, 187(2): 90–94.
- [13] Li XJ, Song CY, Yin TT, 2022, Academic Rethinking of the Integrated Development of High-quality Cultural and Tourism: Difficulties and Paths. *Tourism Tribune*, 37(2): 5–6.
- [14] Terkenli TS, Georgoula V, 2021, Tourism and Cultural Sustainability: Views and Prospects from Cyclades, Greece. *Sustainability*, 14(1): 307.
- [15] Huang YL, 2019, Cultural Interpretation and Tourism Practice of Integrated Development of Culture and Tourism. *People's Forum Academic Frontiers*, 171(11): 16–23.
- [16] Bao JG, Feng J, Huang XH, et al., 2019, Cultural and Tourism Industry Talent Training. *Tourism Forum*, 14(5): 1–16.
- [17] Zhou J, Wang TX, 2021, Research on the Integrated Development Model and Path of Urban Cultural Tourism under the Digital Economy. *Jiangsu Social Sciences*, 318(5): 70–77.
- [18] Qin X, 2022, Information and Data Analysis Based on Big Data and Blockchain Technology in Promoting the Development of Cultural Tourism Industry. *Security and Communication Networks*, 2022(1): 9400077.
- [19] Chen Y, Jia JQ, 2022, New Path of Tourism Destination Development under Digital Economy. *Tourism Tribune*, 37(4): 6–8.
- [20] Chen J, Liu YH, 2019, Digital Intelligence Enables Operational Management Transformation: From Supply Chain to Supply Chain Ecosystem. *Management World*, 37(11): 227–240 + 14.

- [21] Dai B, 2020, Shaping and Construction of the New Pattern of Cultural and Tourism Integration in the Digital Age. *People's Forum*, 661(1): 152–155.
- [22] Zhang XL, Li H, 2022, Research on High-quality Integrated Development of Sports Industry and Cultural Tourism Industry in China: Based on the Perspective of Value Net. *Journal of Shandong University of Physical Education*, 38(4): 21–28.
- [23] Hu YX, 2022, The Integrated Development Path of Cultural and Tourism Industry based on Digital Technology Empowerment. *Business Economics Research*, 836(1): 182–184.
- [24] Dai B, 2019, The Era of Cultural and Tourism Integration: Big Data, Commercialization, and Better Life. *People's Forum Academic Frontier*, 171(11): 6–15.
- [25] Shi PP, Hu YG, Meng JD, 2022, Research Status and Prospect of Tourist Volume Forecasting Model based on Internet Tourism Data. *Resources Development and Market*, 38(8): 921–929.
- [26] Wang CY, Dai TL, Jiang SM, et al., 2022, Research on Image Perception and Emotion Evaluation of Shanghai Red Tourism based on Network Big Data. *Tourism Science*, 36(2): 138–150.
- [27] Liu Y, Chen HL, 2022, Application of Big Data in Tourism Crisis Management. *Tourism Tribune*, 37(7): 6–8.
- [28] Chen LL, Xu JH, Li YJ, 2022, Theoretical Mechanism and Path Exploration of Digital Technology Enabling High-quality Tourism Development. *Reform*, 2022(2): 101–110.
- [29] Gan HC, Li YG, Song YN, 2021, Research on the Integration and Development of Culture and Tourism Based on Wireless Communication and Virtual Reality Technology. *Wireless Communications and Mobile Computing*, 2021(8322092): 6.
- [30] Xie ZW, 2019, Big Data of Cultural and Tourism: The Foundation of Information Technology for the Integrated Development of Cultural and Tourism. *China Tourism Review*, 2019(3): 121–129.

Publisher's note

Bio-Byword Scientific Publishing remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.