



ORIGINAL RESEARCH PAPER

Tourism

SMART TOURISM AND TOURIST ATTRACTIONS

KEY WORDS: Smart tourism, tourist attraction, smart tourist attractions, smart tourist

Dr. Ranbir Singh

Associate Professor & Head of Department, Department of Tourism & Hotel Management, Central University of Haryana, Mahendergarh, Haryana, India

Ankush Duhan

Research Scholar (Ph.D.) Department of Tourism & Hotel Management, Central University of Haryana, Mahendergarh, Haryana, India

ABSTRACT

Smart tourism has emerged as a global trend in the tourism sector. Every aspect of the tourism sector makes use of intelligence. In tourism services and offers, smart systems have become crucial. This study's aim is to design a smart tourism and smart tourist attraction concept. This also represents a smart way of managing and developing tourist attractions. Many studies on smart tourism have revealed a broad idea of smart technologies, tourist experiences, smart locations, and smart transportation. In compared to other domains, there have been comparatively few studies on smart attractions. More research into smart tourist attractions and their management is needed, according to this study.

INTRODUCTION

The term "smart" has rapidly gained popularity in the tourism sector because of the usage of technology of information and communication (ICT) (Caragliu et al., 2011). Safety, health services, education, transportation, environment, management, water, energy, and sustainability are just few areas where smart systems have been adopted (X. Wang et al., 2016). Koo et al., (2013) addressed use of such smart systems to improve the tourist encounter and resource effectiveness. Y. Wang et al., (2020) indicated that many governments, state authorities, and corporate organizations across the globe are seeking to create smart tourism activities as well as initiatives in order to identify the significant potential for competitiveness with ICTs. Smart tourism is the result of the growth of ICT applications, creative tools, and techniques to promote tourism. Smart tourism helps to utilize of allocated resources as well as expansion of stakeholder cooperation —(Boes et al., 2016). At the point of destination, it incorporates smart technologies to aid in the planning, design, and administration of tourism resources, assets, and experiences (Femenia-Serra & Neuhofer, 2018).

Smart tourism cannot be defined solely as a 'tourism + technology' term, but it may be defined as using technological system to improve and facilitate tourism activities. It contains the technology that tourists use to enhance their experience throughout their trip or visit. It is, both conceptually and practically, a new paradigm which has resulted in the emergence of smart city development (Buhalis & Amaranggana, 2013). It's an application of smart technologies like AI (artificial intelligence) technology, cloud technology, and the internet of things (IoT) in tourism for enabling better tourism services (X. Wang et al., 2016). It is also application of technologies of information and communication (ICTs) to develop new tools and ways for improving tourism (Gretzel et al., 2015).

The ST framework has been developed in response to the increasing use of ICTs and the requirement for long-term sustainability (Xiang et al., 2015). ST stands for "a range of smart technologies, such as sensors, beacons, mobile phone apps, radio-frequency identification (RFID), near-field communication (NFC), smart metres, the Internet-of-Things (IoT), cloud computing, relational databases, and others, that together form a smart digital ecosystem that fosters data-driven innovations and supports new business models." (Gretzel, 2018). Several academics have been interested in the topic of smart tourism for the past five years (Xiang et al., 2015). With the growing impact and use of smart technologies in tourism industry, effective research on smart tourism has increased. Several research related to smart technologies and platforms have been done. However, research on customers' perspectives in smart tourism is scarce (X. Wang et al., 2016).

The emerging smart tourism research literature has concentrated on destinations and accommodation. There have been few studies on tourist attractions. In terms of technological advancement, (ML(Zhang Minli) & Wp(Yang Wenpo), 2012) proposed that a smart tourism system may be established using four types of ICT: cloud technology, artificial intelligence technology, Internet of Things and mobile communication. Smart tourism, according to several academics, is an ecosystem that includes a smart destination (spatial zone), a smart business network, and a smart technology infrastructure. Smart tourism has three pillars: (i) improving tourism experiences, (ii) improving asset/resource management, and (iii) achieving competitiveness with a focus on sustainability (Buonincontri & Micera, 2016).

Smart devices and technology are utilized in the tourism business, (X. Wang et al., 2016) estimated that tourism will continue to grow dynamically. Future research, according to (Y. Wang et al., 2020), should incorporate appropriate smart tourism plans and qualitative approaches to design a new course for future study. Shen et al., (2020) suggested that future research could include a research concept relating to cultural and natural tourist attractions. Examining the similarities and contrasts between the two types of tourist attractions could be another area of research. Other tourist attractions could use as study sites for further research, and older travellers' perspectives on smart tourism attractions are encouraged. Empirical research related to some contexts in the tourism industry, like smart tourist attractions, is lacking. As a result, the purpose of this research is to define the terms "smart tourism" and "smart tourist attractions."

Tourist Attractions and Smart Tourist Attractions

X. Wang et al., (2016) stated that as smart technologies' influence on the tourism industry increases, so does research on smart tourism. In comparison to destinations, hotels, restaurants, entertainment, and traffic, the focus on tourist attractions study was less. According to Hanso, (2016), attractions are a vital part of tourism activities as these offer tourists a reason and purpose to enhance their visit and create memories. In the perspective of smart tourism, tourism services and offerings at tourist locations are more convenient and faster (X. Wang et al., 2016). This foresight aids in the expansion of tourism attractions through appropriate design and administration —(Ivars-Baidal et al., 2019). Smart tourist attractions (STA) can be constructed by knowing the needs and preferences of new age tourists, according to (X. Wang et al., 2016)

STA is an ICT-integrated picturesque place with smart facilities. Through digitalization, STAs assist visitors in co-creating their experience. In order to achieve sustainable development, businesses must apply smart ways to make

their practices more environmentally and ecologically friendly to transform traditional tourist sites into smart tourist attractions, environmental impacts and technological advancement are required. STA's essential concepts were also examined in terms of tourist-resource preservation; manage the organization, tourism growth, public service, and decision-making (X. Wang et al., 2016). STA should also be equipped with smart technologies such as cloud computing, a data warehouse, and intelligent IoT, according to the report. These technologies offer a novel approach to improving the tourist experience, resource management, and STA competitiveness (Buhalis & Amaranggana, 2013).

As a result, tourist attractions should come up with a strategy for integrating smart facilities, including smart devices and technology, to serve tourists. To design the STA, significant work, time, and resources are necessary. STA should make the customer journey more appealing, fascinating, and memorable. STTs aid in meeting the goals of building STA at the destination level (Shen et al., 2020). STAs should employ and control appropriate marketing communication to develop the tourist attractions to deliver an effective message to the potential customer (Shen et al., 2020).

Smart tourist and attractions

According to X. Wang et al., (2016) Smart tourism is being developed primarily for improving tourist experience. Due to the advancement of ICT, a new breed of experienced, sophisticated, and demanding tourists has emerged. Many research indicated main visitor wants in this informed era based on a broad review. It also recognized a number of new visitor behavior tendencies that have emerged because of technological advancements. These developments are caused by a variety of ICT tools, such as the internet, mobile phones, critical thinking, and price sensitivity, among others. Such tourists express their needs and behaviors in accordance with the social media age. While visiting tourist destinations, these travelers took advantage of digital tools, technology, self-service and booking applications. Greater worth, good quality, safety, wealth, and time are all things they appreciate. All of these new tourist era patterns provide problems for the growth of tourist attractions. As a result, developing smart tourism attractions from the perspective of new tourists is tough.

According to Y. Wang et al., (2020), tourists use smart technology to communicate with other stakeholders and enhance their visit to tourist destinations. Smart travellers use STTs to take advantage of tourism services. These travelers utilize these platforms to share their travel experiences and knowledge in order to inspire others. This is accomplished with digital tools and platforms. The usage of ICTs has resulted in various changes in visitor behaviour over the last two decades. Tourists have become more reliant and skillful because of smart technology and devices. These smart technologies are to credit for enhancing tourist decision-making]. A few research on connected tourist attractions and tourist experiences have been done. As a result, more research is required regarding this concept.

CONCLUSION

The study's purpose was to introduce the idea of smart tourist attractions and smart tourism. Firstly, significance of smart tourism and smart systems in the tourism industry is discussed. It emphasised the usage of smart systems in several aspects of the tourism sector in the modern days. At the destination level, smartness is being used to improve the visitor experience. It also explained how smart systems aid in administrative functions such as resource use. It emphasized the relevance of technologies of information and communication (ICTs) in the tourism sector for innovation and creativity.

The smart tourism idea and its integration with ICTs were then

presented. The increasing use of ICT tools and apps is credited with the development of smart tourism. Many studies discussed how technology is employed in the tourism industry to help tourists and improve their experience at attractions. Artificial intelligence, the internet of things (IoT), and cloud computing are among technologies employed in smart tourism. Since the last decade, there has been a greater emphasis on smart tourism research. The majority of the research focused on travellers, locations, hotels, restaurants, and services. However, there are fewer studies on attractiveness. Smart tourism has an integration with numerous fields. More research is needed in the realm of attractions.

Finally, a smart tourist attraction concept was revealed. To transform a traditional tourist attraction into a smart tourist attraction, ICT technology, tools, and apps are required. Smart devices and smart technologies can help tourist attractions manage their resources more effectively. The integration of smartness with tourist attractions is beneficial to tourist attraction operation and management. Tourists can use of these unique smart technologies at sites to make their trip more memorable. As a result, smart tourist attractions can use the smart system to become more competitive and innovative.

REFERENCES

1. Boes, K., Buhalis, D., & Inversini, A. (2016). Smart tourism destinations: ecosystems for tourism destination competitiveness. *International Journal of Tourism Cities*, 2(2), 108–124. <https://doi.org/10.1108/IJTC-12-2015-0032>
2. Buhalis, D., & Amaranggana, A. (2013). *Smart Tourism Destinations. In Information and Communication Technologies in Tourism 2014* (pp. 553–564). Springer International Publishing. https://doi.org/10.1007/978-3-319-03973-2_40
3. Buoincontri, P., & Micera, R. (2016). The experience co-creation in smart tourism destinations: a multiple case analysis of European destinations. *Information Technology and Tourism*, 16(3), 285–315. <https://doi.org/10.1007/s40558-016-0060-5>
4. Caragliu, A., del Bo, C., & Nijkamp, P. (2011). Smart cities in Europe. *Journal of Urban Technology*, 18(2), 65–82. <https://doi.org/10.1080/10630732.2011.601117>
5. Femenia-Serra, F., & Neuhofer, B. (2018). Smart tourism experiences: Conceptualisation, key dimensions and research agenda. *Investigaciones Regionales*, 2018(42), 129–150.
6. Gretzel, U. (2018). From smart destinations to smart tourism regions. In *Investigaciones Regionales-Journal of Regional Research* (Vol. 42). <https://www.ibm.com/>
7. Gretzel, U., Sigala, M., Xiang, Z., & Koo, C. (2015). Smart tourism: foundations and developments. *Electronic Markets*, 25(3), 179–188. <https://doi.org/10.1007/s12525-015-0196-8>
8. Hanso, B. (2016). 濟無No Title No Title No Title. 4, 1–23.
9. Ivars-Baidal, J. A., Celdrán-Bernabeu, M. A., Mazón, J. N., & Perles-Ivars, Á. F. (2019). Smart destinations and the evolution of ICTs: a new scenario for destination management? *Current Issues in Tourism*, 22(13), 1581–1600. <https://doi.org/10.1080/13683500.2017.1388771>
10. Koo, C., Shin, S., Kim, K., Kim, C., & Chung, N. (2013). *Smart Tourism of the Korea: A Case Study* (Vol. 138). <http://aisel.aisnet.org/pacis2013/138>
11. ML(Zhang Minli), Z., & Wp(Yang Wenpo), Y. (2012). Fuzzy Comprehensive Evaluation Method Applied in the Real Estate Investment Risks Research. *Physics Procedia*, 24, 1815–1821. <https://doi.org/10.1016/j.phpro.2012.02.267>
12. Shen, S., Sotiriadis, M., & Zhang, Y. (2020). The influence of smart technologies on customer journey in tourist attractions within the smart tourism management framework. *Sustainability (Switzerland)*, 12(10). <https://doi.org/10.3390/su12104157>
13. Wang, X., Li, X. R., Zhen, F., & Zhang, J. H. (2016). How smart is your tourist attraction?: Measuring tourist preferences of smart tourism attractions via a FCEM-AHP and IPA approach. *Tourism Management*, 54, 309–320. <https://doi.org/10.1016/j.tourman.2015.12.003>
14. Wang, Y., Shen, S., Sotiriadis, M., & Zhang, L. (2020). Suggesting a framework for performance evaluation of tourist attractions: A balance score approach. *Sustainability (Switzerland)*, 12(15). <https://doi.org/10.3390/su12156220>
15. Xiang, Z., Tussyadiah, I., & Buhalis, D. (2015). Smart destinations: Foundations, analytics, and applications. *Journal of Destination Marketing and Management*, 4(3), 143–144. <https://doi.org/10.1016/j.jdmm.2015.07.001>