

Influence of Smart Tourism System on Tourism Destination

Vineet Kumar, Assistant Professor

Institute of Integrated and Honors studies (IIHS)

Kurukshetra University kurukshetra

Abstract

The establishment of a smart tourist destination is crucial for fostering collaboration between actors in the tourism industry. Integrating innovative technologies with tourism operations boosts the viability of destinations for tourism by making them smarter. The main aim of this study is to highlight the relationship between smart tourism systems and tourism destinations. Smart destinations can offer better opportunities to gain tourist experiences with the help of infrastructure, services and amenities.

Keywords: Tourism, Technology, Smart Tourism, Smart Tourism System, Smart Tourism Destination

Introduction

Tourism, on the other hand, is a service business involving human conveyance across a certain region to others. Furthermore, tourism is an evolving trend that involves social, cultural, and economic aspects. It is the movement of people across the boundaries into foreign countries or destinations that lie outside their normal locations, conducted for private or professional purposes (Brittonf, 1991). The process of tourism administration can also be used for commercial and corporate traveling purposes and has proved to leave a significant impact on e-tourism.

The magnitude of the travel and tourism sectors is large to both individual daily lives and the global economy. However, despite huge significance, the conventional tourism sector has faced very big barriers in its advancement (Gretzel, Sigala, et al., 2015; Gretzel, Werthner, et al., 2015; Li et al., 2017). More precisely, the problem takes place in a few large theme parks, which include many events. It is very hard to capture visitors' attention for each of the events. Regular discouragements from the visitors to revisit the sites on regular bases. Ever since the commencement of computer networks, information technology (IT) has been extremely vital within the tourism industry as a result of its use in hotel and airline reservations (Gretzel et al., 2015). The adoption of Internet Communication Technologies (ICT) in general has further increased IT's influence on travel (Yoo et al., 2017). The conventional tourism business must immediately be overhauled.

Meanwhile, the world today is defined by ever-increasing applications of modern-day technological evolutions, including big data analytics and the Internet of Things (IoT), in promoting smart tourism among business organizations and institutions of higher learning. IoT smart devices delivered to travellers and installed on sites provide an intelligent connection between travellers and sites. Although with technology there have been major advancements in the travel industry, the current big data era and overreliance on information-communication technologies have resulted in tremendous change that has contributed to a type of tourism termed "smart tourism". Smart tourism is viewed as the next, nearly inevitable stage beyond conventional tourism. It has also changed the way people express their wishes or needs to each other directly, or through a myriad of intermediaries within the tourist chain (Gretzel et al., 2015).

The geolocation devices can therefore accurately give a report to the traveller on some of the famous places around where they are. Smart tourism can be effectively managed with big data and statistical analysis of data and information collected from various devices connected through the Internet of Things (IoT). Big data analytics are in common use in smart tourism for tasks such as social network distribution, traveling route selection, and behavioural study of tourists (Vecchio et al., 2018).

They should be introduced to ease the collection and use of data with the help of new technologies that include gadgets or sensors. It is also important in social media uses, as it forms the primary repository of big data for the tourism industry (Del Vecchio et al., 2018). It is a new vision of tourism and a new branding concept for destinations that use the latest technologies to raise sustainability in tourism. In this manner, the technology ensures issues over water overuse and energy wastage, especially in areas overburdened by a huge number of visitors and with diminishing resources, are well attended to. IT-supported tourism amenities and systems made it easier for the single traveller to plan and manage his holidays (Yoo et al., 2017). First of all, the above study identifies the association between the smart tourism system and the tourism destination.

Smart Tourism

Smart tourism involves dependability on advanced technologies that include social media, smartphones, and tablets. Furthermore, it provides even for sensors of smart devices (Vecchio et al., 2018). Such innovations allow for the collection and use of large volumes of information in a bid to create new value propositions. Recent discussion on smart tourism has rather focused on the actual real-life applications of big data within the wider context of the smart tourism field (Vecchio et al., 2018). This goes from the use of big data in the collection of customer-based insights for decision-making in Swedish mountainside tourism destinations (Fuchs, Höpken, and Lexhagen, 2014), to improved marketing and advertisement strategies of the city tourism ecologies in

Barcelona (Marine-Roig and Clavé, 2014), and increased user participation in city tourism ecologies in San Francisco (Brandt et al., 2017).

According to Neuhofer et al. (2012), complemented offerings that suit customer requirements may be created, and visitors may develop goods and amenities with travelers, giving them more value in immediate terms that could be achieved by using specialized and advanced data extraction techniques and analysis. Nevertheless, the potential value of big data for many industries, including tourism, is appreciated. The use of the whole bulk of data for creating value in smart tourism is considered a very early stage (Gretzel et al., 2015).

Smart Tourism System

With the growth of smart tourism (Yoo et al., 2017), the effect of information technology in the travel sector is increasingly coming to the front. Smart tourism puts into context the integration of "tourism materials, assistance, and IT gadgets" (Yoo et al., 2017). It gives travellers more insight into the details of travel planning by offering representative information about the destination (Yoo et al., 2017). It enhances the validity of the decision-making process by reflecting expert-recommended results within ideal settings rather than real-life situations (Yoo et al., 2017). This is to promise the users of smart tourism more relevant data, better access, and choice support than what they receive in e-tourism (Gretzel et al., 2015).

Nowadays, with the evolution of e-tourism, the present scenario has realized tourism as one of the leading industries, which developed rapidly through the advancement of "smart tourism" by using new technologies (Gretzel et al., 2015). Buhalis and Amaranggana (2015) described the main objectives of 'smart tourism' to be: provision of accurate information, context awareness, and personalization. In this respect, it allows providing a higher quality of life for tourists and offering customers of the system a functionally attractive environment.

Information technology in the tourism sector has been the core subject area for many researchers, more specifically with the influence of smart tourism (Yoo et al., 2017). This technological revolution trend had been permeating across all industries (Ballina et al., 2019). This system—by modern integration of tourist resources with information technology—can deliver useful and updated data and helps in communication among the various related parties of the tourism industry (Buhalis, 2019; Gretzel et al., 2015c; Johnson and Samakovlis, 2019).

Travel rating sites, specifically, TripAdvisor, Yelp, and Trustyou, became the famous digital platforms where clients travel to assess and discuss the features and outcomes of their visit to a given company. These organizations belong to the third-party providers and contribute considerably to the smart tourism system (Kim et al., 2016). Born with the advent of smart tourism

systems, the importance of the Internet-based evaluation as an information source of the perceived value of tourist spaces and accommodation has emerged (Gretzel & Yoo, 2008). Smart Tourism Systems can be termed as the type of technologies that may involve internet accessibility, cell phones, and even enhanced realities, which are going to enable an organization or a system in the line of tourism to meet the needs of their clients. Such systems aim at offering novel amenities and easing the exchange of information (Hunter et al., 2015).

Smart Tourism System & Tourism Destination

In fact, smart experiences, in some authors, are considered the derivative outcomes of smart tourism (Vecchio et al., 2018). This has been as a result of big data fused with tourists' experiences and then enhanced through personalization, knowledge in context, and relentless monitoring (Buhalis & Amaranggana, 2015; Hunter et al., 2015). Smart Tourism Information Systems refer to the elastic and pliable delivery of effective links to a variety of nodes of sensors and tourism networks. The system offers the means of development to include transactions, smart guidance, intelligence advertisement, and management of intelligence between tourist attractions to assist the businesses and the tourism-related businesses.

Business firms leverage smart location-based tourism to provide an integrated ICT framework, developing and providing more enriched experiences for tourists and thus gain a competitive edge from rival firms. Smart tourism allows potential tourists to plan and offers them a tour experience, incorporating both evaluations and inputs from other tourists long before they come to a decision on which tourist site to visit. On the other hand, smart tourism is a result of networking the relevant stakeholders to the tourist destinations in fluid channels of knowledge-based conversation and enhanced systems for decision-making. This is in an effort to personalize, making it context-aware for tourists, through the 24-hour surveillance of technological breakthroughs (Buhalis & Amaranggana, 2015).

In order to maximize the competition between these destinations, guaranteeing customer contentment and thus an improved overall tourist experience, the smart tourism destination must pursue sustainable development in social, economic, and environmental aspects. This means preserving these boundaries for the local inhabitants and other stakeholders. This perspective banked on the technological advances that promised sustainable development within an area, improved customer mobility, promoted interaction and integration, and raised the living standard of the residents while offering the tourist a pleasant trip.

The concept of the smart destination has resonated well, finding a home and being embraced by scholars and academics in equal measure to policymakers. Academic and government officials in such countries have thus easily embraced the idea of smart tourism, with the use of smart

technologies covering most aspects of the industry (Gretzel, Sigala, et al., 2015). Eminent development of smart tourism, especially smart destination tourism, is emerging and eminent in the development of tourism policy study (Gretzel, Sigala et al., 2015). Misunderstanding smart marketing as an evolving tool in philosophical and operational elements may result in misusing it in destination marketing strategies. In addition, smart tourism was conceptualized with the concept of Smart Tourism Destination (STD) and Innovative Tourist Communities (Ghorbani et al., 2019).

The technology will position the tourism suppliers within STD to take advantage of a centralized data system that will enhance the commercial decision-making process. Smart tourism destination entails a tourism site that links all sources of tourism sites to most community stakeholders through the use of adoptive channels, communication channels that require high expertise, and effective decision-making systems. A Smart Destination of Tourism aims to provide the visitor with a smart experience that represents the encounter facilitated by technological advances and enriched by personalization, knowledge of the surrounding environment, and continual evaluation (Buhalis & Amaranggana, 2015). The destination of a smart tourism is being investigated as the leading phenomenon today with the promise for the tourism industry from many perspectives (Vecchio et al., 2018). This focuses on the development of theories and resources and tactics with the point of supporting the strategic creation of places (Authors, 2014).

Equally, a smart tourism destination is the one that has well-developed facilities, innovative procedures, and easily reachable, connected, and collaborative procedures to increase their quality of life, just like for the visitors as well as the residents (Caragliu et al., 2011). The concept of smart tourism will combine devices of technology, humans, and organizations so as to come up with a developed destination (Nam & Pardo, 2011). All this can be achieved through the smart destination, which is the convergence of technologies, amenities, and competences within a varied and adaptable organization towards advancements (Vecchio et al., 2018). Besides, this network should be able to reach everyone (Albino et al., 2015). Buhalis and Amaranggana (2013) discovered that what actually forms the smart destination for tourism is connecting the tourist destination with the local people using innovative platforms, along with knowledge-based communication flows and systems for making better decisions. Essentially, the main objective of the smart tourism destination is to enhance the quality of the tourist's experience by optimizing not only the competitive location but also the happiness of consumers with a long-term frame that accords priority to sustainability.

The role of current technology in smart tourist destinations is to assist the visitors in co-creating goods, experiences, and amenities of value. This also helps in the generation of wealth and profit, plus advantages both for organizations and destinations (Boes et al., 2015). Social media and the internet represent a very important aspect in supporting the increase of the smart destination's

capacity to develop new and exciting relationships through the possibility that a network can be created (Vecchio et al., 2018).

Discussion & Conclusion

This study has been conducted with the objective of representing the relation that smart tourism systems hold with tourism destinations. Technological advancement helps in changing the working scenario of the industry of tourism. Hence, the marrying of information technology with tourism activities further paves way for the development of the tourism amenities and services provided for tourists at the destination place. This study is able to derive the importance of technical progress for tourism activities and further able to cite the conceptual framework of smart tourism. Moreover, it brings out the role of Smart Tourism Systems in making destinations of tourism smarter. Thus, it could be derived that a smart tourism system may help in transforming an ordinary tourism destination into a smart tourism destination. This is because this kind of tourism destination is only able to make ways for providing valuable experiences to the visitors or tourists.

References

- Albino, V., Berardi, U., & Dangelico, R. M. (2015). Smart cities: Definitions, dimensions, performance, and initiatives. *Journal of Urban Technology*, 22(1), 3–21. <https://doi.org/10.1080/10630732.2014.942092>
- Authors, F. (2014). *Progress on information and communication technologies in hospitality and tourism*. <https://doi.org/10.1108/IJCHM-08-2013-0367>
- Boes, K., Buhalis, D., & Inversini, A. (2015). Conceptualising Smart Tourism Destination Dimensions. *Information and Communication Technologies in Tourism 2015*, 391–403. https://doi.org/10.1007/978-3-319-14343-9_29
- Brandt, T., Bendler, J., & Neumann, D. (2017). Social media analytics and value creation in urban smart tourism ecosystems. *Information and Management*, 54(6), 703–713. <https://doi.org/10.1016/j.im.2017.01.004>
- Brittonf, S. (n.d.). *Tourism, capital, and place: towards a critical geography of tourism*.
- 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
- Buhalis, D., & Amaranggana, A. (2015). Smart Tourism Destinations Enhancing Tourism Experience Through Personalisation of Services. In *Information and Communication Technologies in Tourism 2015* (pp. 377–389). Springer International Publishing. https://doi.org/10.1007/978-3-319-14343-9_28

- 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>
- Del Vecchio, P., Mele, G., Ndou, V., & Secundo, G. (2018). Open innovation and social big data for sustainability: Evidence from the tourism industry. *Sustainability (Switzerland)*, 10(9). <https://doi.org/10.3390/su10093215>
- Ghorbani, A., Danaei, A., Zargar, S. M., & Hematian, H. (2019). Designing of smart tourism organization (STO) for tourism management: A case study of tourism organizations of South Khorasan province, Iran. *Heliyon*, 5(6). <https://doi.org/10.1016/j.heliyon.2019.e01850>
- 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>
- Gretzel, U., Werthner, H., Koo, C., & Lamsfus, C. (2015). Conceptual foundations for understanding smart tourism ecosystems. *Computers in Human Behavior*, 50, 558–563. <https://doi.org/10.1016/j.chb.2015.03.043>
- Gretzel, U., & Yoo, K. H. (n.d.). *Use and Impact of Online Travel Reviews*.
- Hunter, W. C., Chung, N., Gretzel, U., & Koo, C. (2015). Constructivist Research in Smart Tourism. *Asia Pacific Journal of Information Systems*, 25(1), 105–120. <https://doi.org/10.14329/apjis.2015.25.1.105>
- Kim, J. Y., & Canina, L. (2015). An analysis of smart tourism system satisfaction scores: The role of priced versus average quality. *Computers in Human Behavior*, 50, 610–617. <https://doi.org/10.1016/j.chb.2015.02.070>
- Kim, J. Y., Hlee, S., & Joun, Y. (2016). Green practices of the hotel industry: Analysis through the windows of smart tourism system. *International Journal of Information Management*, 36(6), 1340–1349. <https://doi.org/10.1016/j.ijinfomgt.2016.05.001>
- Li, Y., Hu, C., Huang, C., & Duan, L. (2017). The concept of smart tourism in the context of tourism information services. *Tourism Management*, 58(September), 293–300. <https://doi.org/10.1016/j.tourman.2016.03.014>
- Nam, T., & Pardo, T. A. (2011). Conceptualizing smart city with dimensions of technology, people, and institutions. *ACM International Conference Proceeding Series*, 282–291. <https://doi.org/10.1145/2037556.2037602>

- Neuhofer, B., Buhalis, D., & Ladkin, A. (2012). Conceptualising technology enhanced destination experiences. *Journal of Destination Marketing and Management*, 1(1–2), 36–46. <https://doi.org/10.1016/j.jdmm.2012.08.001>
- Vecchio, P. Del, Mele, G., Ndou, V., & Secundo, G. (2018). Creating value from Social Big Data: Implications for Smart Tourism Destinations. *Information Processing and Management*, 54(5), 847–860. <https://doi.org/10.1016/j.ipm.2017.10.006>
- Yoo, C. W., Goo, J., Huang, C. D., Nam, K., & Woo, M. (2017). Improving travel decision support satisfaction with smart tourism technologies: A framework of tourist elaboration likelihood and self-efficacy. *Technological Forecasting and Social Change*, 123, 330–341. <https://doi.org/10.1016/j.techfore.2016.10.071>