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To Link this Article: http://dx.doi.org/10.6007/IJARBSS/v12-i5/13240 DOI:10.6007/IJARBSS/v12-i5/13240

Received: *15* March 2022, ***Revised:*** *18* April 2022, ***Accepted:*** *30* April 2022

Published Online: 21 May 2022

In-Text Citation: (Abdullah et al., 2022)

To Cite this Article: Abdullah, A., Isa, N. M., Azmi, A., and Yahaya, M. F. (2022). A Scoping Review of Blockchain Technology in Smart Tourism Research Publications: Evidence from the Scopus Database. *International Journal of Academic Research in Business and Social Sciences. 12(5),* 1396 – 1407.

Vol. 12, No. 5, 2022, Pg. 1396 – 1407

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A Scoping Review of Blockchain Technology in Smart Tourism Research Publications: Evidence from the Scopus Database

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Abstract

Although blockchain technology has been widely discussed in many areas, the direction of research and evidence related to smart tourism is still unclear to reflect this latest network-based technology. To reduce this gap, this study attempts to explore recent research publication work regarding the blockchain context in the tourism management literature in the Scopus database. Using a scoping review approach suggested by Arksey and O'Malley, the result until May 2021 revealed only eleven (11) papers published in the database. This scoping review aimed to provide a map of the research development, the routes of research concern topics, and some potential research opportunities. The results indicated that there were many conceptual documents versus empirical documents, particularly in the tourism management field, and that they were still in the early stages of the publication trend. The results of the analysis of these data were highlighted and discussed.

Keyword: Blockchain Technology, Tourism, Smart Tourism, Scoping Review

Introduction

The tourism sector can be considered one of the vital economic growth sectors in many countries worldwide. Numerous previous studies have claimed this notion as the tourism sector (for example, see Kaján & Saarinen, 2013, Pang et al., 2013), resulting in enormous gross domestic product growth (GDP), particularly as a source of wealth. However, the development and massive demand for the tourism trend have recently declined due to the Coronavirus (COVID-19) outbreak in 2020. The COVID-19 pandemic has led to a global lockdown, which has significantly impacted consumer behaviour. It can also be observed that some behavioural changes before the outbreak have either accelerated, diminished, or

ended. New consumer habits and expectations have become apparent. Discretionary spending has suffered, and spending trends have altered. In this regard, understanding and responding to changes in consumer behaviour would be critical to the recovery of the tourism industry in the future. Organisations must reconsider the client experience and re-engage with clients to build and maintain trust. At the same time, they also need to improve their operational agility to navigate the uncertainties of doing business in a world ruined by a pandemic.

According to several early reports and research studies, the tourism industry needs to be fuelled by the evolution of technologies (Buhalis & Leung, 2018; Hua,2018). The use of new technologies such as Blockchain can give rise to a connected generation of travellers and sustain the operations of the tourism industry (Valeri & Baggio, 2021). Blockchain Technology (BCT) has been claimed to have the potential to significantly reshape the tourism industry into a smart industry (i.e., smart tourism). Despite the emerging technological phenomenon used in smart tourism (see Bastidas-Manzano et al., 2021; Buhalis & Leung, 2018; Cai et al., 2019), there has been little research on BCT in Smart-Tourism (ST). Specifically, this would involve the extent of its discipline direction and the most research streams and efforts. Understanding the research works on how Blockchain technology has been applied to the ST domain is important because it may reflect on the big picture that can clarify the current scope, characteristics, and potential of interest of research. Therefore, this study seeks to fill this gap by addressing three main research objectives as follows:

1) To identify research on BT progressed in ST literature.
2) To understand the focus areas of BT research related to ST.
3) To explore the potential focus area that would be the subject of future research.

Hence, this study employed a scoping review approach. The interest of this study contributes to the tourism academic community by identifying the papers published to date and exploring their focus research areas. This study can be a valuable reference to initial researchers who have just begun searching and understanding BCT-related research publications in the ST context. Besides, it can also indirectly provide insights to university researchers, policymakers, research directors, and administrators on the scope of research publications in this area.

The study begins by defining the concept and describing the scoping review methods before advancing to results and discussion. The remainder of this paper is organised in the following manner: Section 2 provides the methodology adopted in this study. Section 3 reports the results of a bibliometric survey. Section 4 discusses the results. Lastly, Section 5 concludes the paper.

Methodology

This study used a systematic approach to review the published literature and adopted a scoping review as the best method to map the evidence of blockchain technology research trends in the smart tourism domain over the recent decade. Scoping review methodology is particularly useful to examine a broadly covered topic to map the literature and identify key concepts, theories, evidence, or research comprehensively and systematically. Unlike systematic reviews or meta-analyses, scoping review does not narrow the review parameters to research trials or require quality assessment. Nonetheless, this type of review is rigorous and methodological in its approach to examine the extent, range, and nature of research activity in a particular field while encompassing both empirical and conceptual research with framed questions. In developing the scope review protocol, this study built on the significant work of Arksey and O'Malley (2005) as well as recent scoping review publications. The

adaptations were motivated by developing a feasible approach to review research publications related to blockchain technology in smart tourism.

Process for Searching and Selecting Relevant Studies

The data in this study were extracted on 15 of May 2021 using the keywords applied to search related article publications from the Scopus database (i.e., including four sections: title, abstract, author keywords, and keyword plus). This database was chosen since it can provide interfaces to perform simultaneous searches on different sources using a common set of search strings. Besides, this database also includes various sources containing studies of ACM, EBSCOhost, Elsevier, Emerald, IEEE, INFORMS, ProQuest, SAGE, Springer and Taylor & Francis Wiley. Additionally, this database also calculates the Journal Citation Report (JCR) and the SCImago, Journal Rank (SJR) indicator. Therefore, this study started with a preliminary identification of related keywords to limit the scope of the search using keywords proposed by Bastidas, Sánchez-Fernández, and Casado-Aranda (2021), namely “smart tourism” OR “smart tourism destination” as the search strings to extract related publications from Scopus database.

Different from Bastidas et al (2021), the present study validated the search strings by conducting an email survey on 30 experts identified as respondents who can verify relevant keywords regarding BCT in Tourism (see Abdullah, Waemustafa, & Mat Isa, 2017; Chabowski, Samiee, & Hult, 2013). Based on the high selection of votes among the experts, the keywords "smart tourism" and "smart tourism destination" were finalised. The result of the search showed 599 publications in the Scopus database. Since this study was only concerned with publications related to BCT, the search string of “blockchain technology” was further refined to exclude other publications that were not related to the BCT in the Smart tourism segmented area. Besides, only publications using the “English” language type were selected. Publications that did not meet these requirements were excluded. This was consistent with the practice of several previous studies (see, for example, Abdullah et al., 2017; Rey-Martí et al., 2016). Accordingly, this study managed to determine only 11 papers related to BCT in the smart tourism context.

Furthermore, to ensure other publications would not be overlooked and qualified for a review, this study also searched Google Scholar for highly cited publications (i.e., 100 or more citations). Again, the results of the search were identical. This procedure was consistent with the work proposed by West and Bogers in 2014. The details of the data collection process are shown in Figure 1.

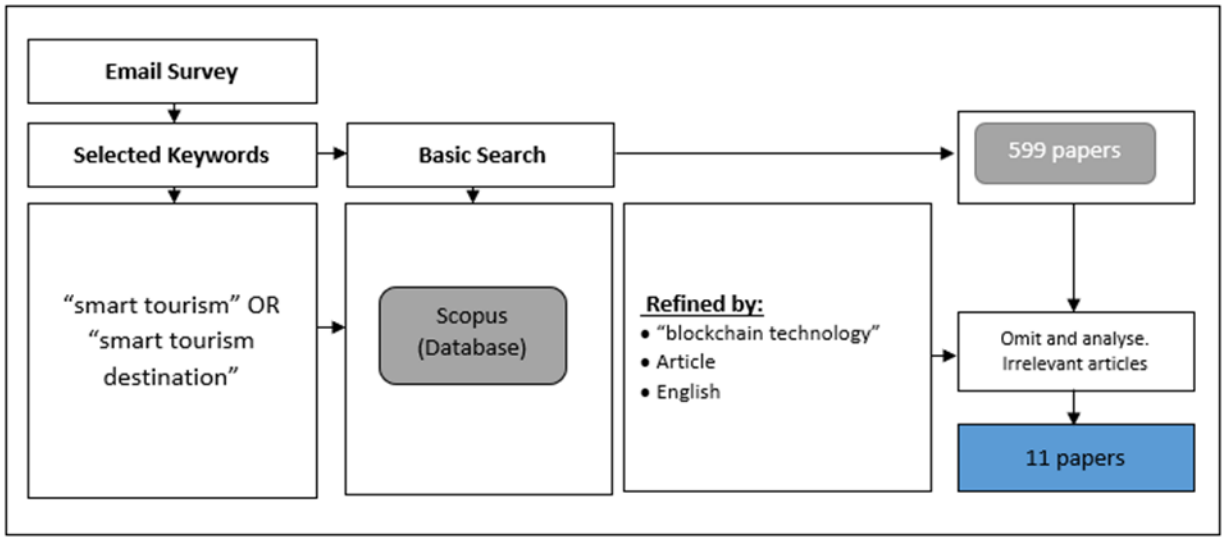

Figure 1. Detail selection process on blockchain technology in smart tourism

Finding and Discussion

Objective 1: Progress research of Blockchain technology in Smart Tourism.

Concerning the research publication trend of BCT in smart tourism, an analysis was conducted on the routinisation of Scopus databases 2021 (Carvalho et al., 2013). Panel A of Table 1 presents the search results of document types related to BCT in smart tourism. It was found that there was a minimal number of research publications related to this topic. However, the number of publications was expected since BCT has been a relatively new area of research and has been most strongly associated with science and technology. However, only eleven (11) different documents were found, with the publications in the area beginning in 2019, with only three early publications. Moreover, these eleven (11) documents included five (5) journal articles, one (1) book chapter and five (5) proceeding papers. It should be noted that there were also articles related to this topic that were not published in tourism domain journals but were ranked in quartiles 2 (Q2). However, it can be observed that the Asia Pacific Journal of Tourism Research and Journal of Contemporary Hospitality Management were among the leading journals.

One of the possible reasons there was a low number of publications can be attributed to the focus of the researchers on other technologies of smart tourism rather than BCT. Second, perhaps the lack of exposure of academics to the relatively complex technical issues of BCT has impacted the understanding and interest in pursuing research in this area. Thirdly, the traditional functional organisation of academic institutions and universities deter cross-functional research initiatives, where tourism and computer science expertise can be combined. Although only these few articles were found, a rising interest could be observed in this area of concern because bibliometric information showed some increase in research publications until 2021. Nonetheless, it can still be perceived that research publications in this area were inadequate and warrant more future studies to initiate a new context of smart tourism in BCT perspectives.

Table 1: Summary of research publication addressing blockchain technology related to tourism.

Panel A: Types of published documents (2019-2021)	
	No of Papers
Article	5
Conference paper	5
Book Chapter	1

Panel B: Journal title and publisher (2019 -2021)		
	Quartiles	**Publisher**
*Journal of High Technology Management Research	Q2	Elsevier Ltd
Asia Pacific Journal of Tourism Research	Q1	Routledge
*Sustainability (Switzerland)	Q2	MDPI AG
*Wireless Communications and Mobile Computing	Q2	Hindawi Limited
International Journal of Contemporary Hospitality Management	Q1	Emerald Group

Table 2 summarises the publication titles of 10 articles (excluding one chapter in the book) that appeared in the BCT database in smart tourism. This also includes the subject's area, number of citations and authors.

Table 2; Summary of publication titles related to blockchain technology in smart tourism.

	Subject Area	**Citations**	**Authors**
Journal Article			
An IAD type framework for Blockchain-enabled smart tourism ecosystem	Buss., Mgt. & Acc.	0	Yadav et al (2021)
Blockchain technology for smart city and smart tourism: latest trends and challenges	Buss., Mgt. & Acc.	15	Nam et al (2021)
Blockchain technology for smart tourism destinations	Sosial Science	0	Tyan et al (2020)
Research on Construction of a Cloud Platform for Tourism Information Intelligent Service Based on Blockchain Technology	Comp. Science	1	Wei et al (2020)
Blockchain: a paradigm shift in business practices	Buss., Mgt. & Acc.	9	Kizildag et al. (2019)
Conferences Paper			
Ensuring transparency and traceability of food local products: A blockchain application to a Smart Tourism Region	Comp. Science	6	Baralla et al (2021)
Convergence of IoT in tourism industry: A pragmatic analysis	Comp. Science	1	Verma et al (2021)
Smart Technologies for Smart Tourism Development	Comp. Science	1	Gajdošík & Orelová (2020

BloHosT: Blockchain enabled smart tourism and hospitality management	Comp. Science	30	Bodkhe et al (2019)
A Blockchain based system to ensure transparency and reliability in food supply chain	Comp. Science	8	Baralla et al (2021)

It can be observed that the publications were mainly in the area of computer science, followed by business, management and accounting, and social science. The highest cited paper related to ST and BCT was a conference paper entitled "BloHosT: Blockchain enabled smart tourism and hospitality management" (with 30 citations) under the computer science domain. This was followed by a publication entitled "Blockchain technology for smart city and smart tourism: latest trends and challenges" (with 15 citations). Besides, it also can be observed that none of the existing authors had more than two publications. Looking at this research citation impacts, it appeared that the application and adaptation of the BCT to enable ST was not deemed as a serious issue, nor it is important in the framework of the greater dependence on Internet Computer Technologies (ICTs). Hence, it can be assumed that all publications in this area of concern were still at the initial stage, although studies on BCT have emerged in other fields of study.

Objective 2: Existing Research Focus area on Blockchain Technology in the Smart Tourism Context

This study addressed the research focus area of the papers published by analysing the literature summary using the first pass reading technique (see Keshav, 2007). Table 3 exhibits the research methods/designs applied in the journal articles and conference papers. On the whole, it can be observed that there were more conceptual papers than empirical/applied/experiment studies published on BCT in the ST context. For example, five (including one literature review paper) articles addressing blockchain technology in smart tourism were conceptual, while four papers displayed empirical/experimental evidence on BCT applications. Although there were differences in the research design among studies, this study observed that the issue highlighted was in the same context: improving tourists experience and engaging consumer behaviour.

Table 3. Summary of research method/design and research focus area to Blockchain in smart tourism.

Research method/ design	**No. of papers**	**Focus Area**
Conceptual	4	• BCT framework in smart tourism • BCT & Smart destination, Smart city
Empirical/Applied/Experimental	4	• The application of "Smart Contract" • BCT-oriented platform, • Trust, data integrity & safety of BC • Cloud Platform & BC
Case Study	1	• BCT model for digital payment and cryptocurrencies.
Literature review	1	• BCT & Business practice

Out of the five conceptual papers, it was found that four papers did not use a specific theory as many of them were either commentaries such as papers on BCT or theoretical discussions. Generally, all articles only attempted to highlight key characteristics of BCT in conjunction with the smart tourism/destination/city framework while making propositions of how the technology would evolve and influence the industry. It was observed that the focus of these papers was to give insight based on four primary goals of using BCT, namely: improving tourist experience, rewarding sustainable behaviour, ensuring benefits to the local communities, and reducing privacy concerns. These studies also classified and proposed several potential areas for adoption and implementation, including payment and cryptocurrencies, tracking and service customisation, the disintermediation of hospitality and tourism, innovative loyalty programmes, smart contracts, integrated property management systems, verified rating and review systems, collaborative initiatives, and due diligence. However, a paper was found proposing a deep discussion on the framework for the BCT ecosystem in the ST context by emphasising specific theories. This paper (i.e., *An IAD type framework for Blockchain enabled smart tourism ecosystem*) used institutional theory to support the BCT framework in the ST ecosystem based on Institutional Analysis and Development (IAD) framework structure. Based on the early idea proposed by Scott (2004), they argued that the integration of ST with BCT could be drawn into institutional theory perspective structures (i.e., schemas, rules, norms, and routines) as authoritative guidelines for social behaviours in institutional settings. However, it was observed that the paper only pieced together parts of the ST ecosystem by studying the possible interactions between various organisations (i.e., key agents and institutions of the tourism industry) based on published articles proposing the possible integration with the BCT.

Different from this conceptual paper, one case study paper (i.e., *BloHosT: Blockchain enabled smart tourism and hospitality management)* had established IT principles in decision making (i.e., trust and satisfaction), proposing a framework of BCT in the ST context, namely BloHosT; which allowed interoperability and trust among participating stakeholders. This technical computer science-based paper attempted to elaborate the BCT framework through different phases and layers. This included the use of crypto-currency to enable applications and smart contract technology. Researchers introduced different smart contracts layer (i.e., relationship contract, service level contract and permission contact). Besides, the proposed design framework also included "*Tourism enabled Deep-Learning"* to generate rating scores for future travellers across the globe by running a specific algorithm (i.e., LSTM). Three case studies (i.e., Dubai Smart Tourism 2.0; Deloitte's Global blockchain survey; CoolCousin travel company) were used by researchers to predict, discuss and visualise the suitability of the proposed framework in the tourism sector.

Of the limited number of published conceptual studies, it was observed that an article had adopted a literature review perspective. The paper (i.e., *Blockchain technology for smart city and smart tourism: latest trends and challenges*) discussed the opportunities inherent in the BCT development in ST. The authors examined the main features of the Blockchain in discussing the evolutionary mechanisms surrounding the technology. They identified and explained three features of the BCT to improve the ST ecosystem in the context of cost reduction, cryptocurrencies, and network platforms. The authors also gave some worrying issues in this paper by highlighting primary concerns regarding the potential applications of BCT, specifically the privacy concerns, data security, micro-management, overpowering and possible adverse behavioural effects. The authors highlighted four propositions (i.e., process,

incentives, networks, and players) while discussing the challenges and future directions, including misconceptions about Blockchain.

On the other hand, four (4) experimental designed papers aimed to determine the optimal application of the BCT ecosystem in a smart tourism context, its trust and safety, and how the system can support some decision-making processes were identified. These four papers were found in the computer science segment revealing smart contracts through a blockchain-based system, cloud, and blockchain-oriented platforms in smart food tourism and the tourism supply chain. Moreover, one study focused on the impact of BCT in the ST context. The study argued that ST technologies positively impacted tourists' experience, effectiveness, and the competitiveness of the business and destinations, particularly in central Europe. Furthermore, they revealed that technologies provided information (including Blockchain) to enhance the tourist experience. However, it was expected to happen within 3 to 4 years to reach its actual productivity. This might indicate the lack of emerging research on BCT application in ST and business management. Apparently, this also signalled a lack of empirical-based knowledge in this field.

Objective 3: Potential Research Focus for Future Study on Blockchain Technology in Smart Tourism

Based on the discussion highlighted in the eleven articles, this study visualised several potential focus areas that can be subjected to further argument. First, it urged for more future studies related to BCT in the disciplines of tourism management because early studies only put substantial efforts in conceptualising and defining the use of BCT in the context of the ST framework. It can be noticed that less was understood about the tangible effects of BCT, particularly on the successful impact of BCT. Furthermore, the type of blockchain technology, the organisational and environmental factors, and subsequent value creation were still unknown. It was perceived that focusing on the different types of empirical research action would further clarify the complexity of blockchain integration on the individual, organisation, and environmental factors. Moreover, while many of the papers have claimed BCT can potentially affect the ST ecosystem, none of the existing papers discussed the disadvantages of digitalisation and the increase in automatisation, which can affect careers in the tourism industry. It was believed that the issues needed to be explored further using critical theories and approaches. This was because the impact of BCT on choices and preferences, human resources and the economy of the future needed to be observed by the tourism industry players since the tourism sector has become one of the primary vehicles for economic growth.

Second, another aspect that could be considered in the future study included supporting the BCT framework in ST. The existing research has exhibited relatively little anchoring theory, particularly to support the proposed framework for BCT in the ST context. Therefore, this study argued that future studies should apply different theoretical perspectives to better understand the impact and focus of BCT change in the ST context. This perhaps could include theories used in other areas, such as stakeholder theory (see Nilsson, 2007; d'Angella, & Go, 2009; Getz, & Timur, 2012) and dynamic capabilities theory (Teece, 2018), as well as more-specific theories such as IT governance theory (see for example Willson, & Pollard, 2009), and theory of disruptive innovation (Bower & Christensen, 1995). If different theories could be used to apply within the context of BCT and ST ecosystems, exciting results and alternative solutions to the proposed framework could be enhanced.

Additionally, different perspectives of the theories could also introduce mediating and moderating effects, and further help explain the drawbacks and benefits of BCT in the ST

ecosystem. This could include external factors such as legislation, economic environment, national culture competition and customer and supplier relations. Meanwhile, internal factors could involve size, industry, power relations, organisation principles and culture, and management characteristics.

Third, this study perceived that tourism education could be another area for future studies, particularly in universities. Research has been lacking on the current progress in this field. Since there have been no papers on the tourism education domain, especially in BCT and ST context, there may be a need to re-evaluate tourism curricula given the potential impact of BCT and SM on the tourism industry. Universities, especially faculties, should introduce BCT's technical aspects (i.e., know-how) to students during their first degree in courses on IT. How tourism education should respond to the increasing use of BCT in the tourism industry could be further explored. Finally, the study considered that more cross-functional research projects involving tourism and computer researchers should be promoted. Though it seemed rare, it was believed that such cooperation would offer fruitful avenues for the competencies and focus. The rapid growth of scholarly studies can be anticipated to increase. Previous studies have identified a few countries and institutions that were actively involved in research in this field (i.e., Bastidas-Manzano et al., 2021; Cai et al., 2019). Authors or institutions from other countries can extend their collaborative links with their colleagues in various active institutions in this area.

Conclusion

This study investigated the existing academic publications in smart tourism related to the BCT context based on the Scopus database until May 2021. Unlike systematic reviews or meta-analyses, this study only evaluated and summarised the publications by examining the extent, range, and current research focus activity of empirical and conceptual research with three framed questions. Based on the selection procedures of the scoping review, only eleven (11) publications papers were found related to BCT in the ST context, and many of these papers were conceptual. It was observed that these papers were still at the initial stage in the tourism management literature. Commonly, all these papers attempted to highlight key characteristics of BCT and make propositions in conjunction with the smart tourism/destination/city framework. With some exceptions, this has led to the perception that the focus of these papers shared the same context, particularly in enhancing the tourism experience, rewarding sustainable behaviour, ensuring benefits for local communities, and reducing privacy concerns. Based on these findings, it was also perceived that there seemed to be limited interest in the tourism research community in generating knowledge, mainly in the tourism management domain. However, this study found several considerable research efforts in the computer science field that have focused on infrastructure issues, security, data integrity, network size, BCT platform, and application in this area of concern. Therefore, the results of this analysis may reflect the importance of articles in the literature reviews and provide some insights into the research landscape in this area. Besides, it was also expected that this finding would also influence them to bring more attention to research publications in this area.

However, the method used for the scoping review in this study has some limitations. First, this study only considered the Scopus database to analyse the research publications in BCT in the ST context and could restrict some good relevant articles that have not been indexed. Data from the non-Scopus may supply the researchers with a more comprehensive and robust analysis of BCT-related studies in the ST context (see Aghaei et al., 2013; Abdullah

et al., 2017). Secondly, the keywords used in the search were not exhaustive, although great care was taken to include the most relevant terms by emailing 30 experts to validate the search. Besides, a refined search string of "Blockchain technology'' within smart tourism and smart tourism destination context made the search so narrow that the result may have overlooked potential studies regarding BCT study. It was possible that some papers did not appear in the search result due to the use of different terms such as distributed ledger technology instead of Blockchain and EMR, HER, HIS, or ICT as an alternative for tourism. This limitation, however, was addressed when we carried out an explorative search in Google Scholar for papers with more than 100 citations (West and Bogers, 2014), and the result was identical. Lastly, this study only focused on scoping review by studying only BCT documents within the Scopus database and excluding other documents that were not classified as articles and proceedings papers, like reviews, book reviews, etc. The absence of this data at specific points may weaken some of the justifications due to the lack of variety in the research publication outputs. However, the good news was that many of the research areas in BCT, in general, were open for future research efforts. Therefore, it can be perceived that this research analysis could provide a foundation for further measures that could enhance the body of knowledge and theoretical development of BCT from the tourism management perspective.

References

Abdullah, A., Waemustafa, W., and Isa, M. H. (2017), "Disclosure of Information in Company's Annual Reports: A Bibliometric Analysis", *Book of Conference Proceedings* Vol. 2, Issue 2, p. 66, July 2017, Park Royal, Penang: CSRC Publishing. Available at SSRN https://ssrn.com/abstract=3057542 or http://dx.doi.org/10.2139/ssrn.3057542

Chadegani, A., Salehi, H., Yunus, M. M., Farhadi, H., Fooladi, M., Farhadi, M., and Ale Ebrahim, N. (2013), "A comparison between two main academic literature collections: WoS and Scopus databases", *Asian Social Science*, 9(5).

Arksey, H., and O'Malley, L. (2005), "Scoping studies: towards a methodological framework", *International Journal of Social Research Methodology*, 8(1), 19-32.

Bastidas-Manzano, A. B., Sánchez-Fernández, J., and Casado-Aranda, L. A. (2021), "The Past, Present, and Future of Smart Tourism Destinations: A Bibliometric Analysis", *Journal of Hospitality and Tourism Research*, 45(3), 529-552.

Bower, J. L., and Christensen, C. M. (1995), "Disruptive technologies: Catching the wave", *Harvard Business Review*, (January-February).

Buhalis, D., and Leung, R. (2018), "Smart hospitality: Interconnectivity and interoperability towards an ecosystem", *International Journal of Hospitality Management*, 71, 41-50. https://doi.org/10.1016/j.ijhm.2017.11.011

Cai, W., Richter, S., and McKenna, B. (2019), "Progress on technology use in tourism", *Journal of Hospitality and Tourism Technology*, 10(4), 651-672. https://doi. org/10.1108/JHTT-07-2018-0068

Chabowski, B. R., Samiee, S., and Hult, G. T. M. (2013), "A bibliometric analysis of the global branding literature and a research agenda", *Journal of International Business Studies*, 44(6), 622–634.doi:10.1057/jibs.2013.20

d'Angella, F., and Go, F. M. (2009), "Tale of two cities' collaborative tourism marketing: Towards a theory of destination stakeholder assessment", *Tourism Management*, 30(3), 429-440.

Getz, D., and Timur, S. (2012), "12 Stakeholder involvement in sustainable tourism: balancing the voices", *Global Tourism*, 230, 230-247.

Hua, Z. (2018), "A study on the management model of smart tourism industry under the era of Big Data", In Proceedings of the 2018 *International Conference on Information Science and System* (pp. 102-106). Association for Computing. https://doi.org/10.1145/3209914.3234637

Kaján, E., and Saarinen, J. (2013), "Tourism, climate change and adaptation: A review", *Current Issues in Tourism*, 16(2), 167-195. https://doi.org/10.1080/13683500.2013.774323

Keshav, S. (2007), "How to read a paper", *ACM SIGCOMM Computer Communication Review*, 37(3), 83-84.

Nilsson, P. Å. (2007), "Stakeholder theory: The need for a convenor. The case of Billund", *Scandinavian Journal of Hospitality and Tourism, 7(2), 171-184.*

Pang, S. F. H., McKercher, B., and Prideaux, B. (2013), "Climate change and tourism: An overview', Asia Pacific *Journal of Tourism Research*, 18(1-2), 4-20. https://doi.org/10.1080/10941665.2012.688509

Scott, W. R. (2004a), "Institutional theory", *Encyclopedia of Social Theory*, 11, 408–414.

Teece, D. J. (2018), "Dynamic capabilities as (workable) management systems theory", *Journal of Management and Organization*, 24(3), 359-368.

Valeri, M., and Baggio, R. (2021), "A critical reflection on the adoption of Blockchain in tourism", *Information Technology and Tourism*, 23(2), 121-132.

West, J., and Bogers, M. (2014), "Leveraging external sources of innovation: a review of research on open innovation", *Journal of product innovation management*, *31*(4), 814-831

Willson, P., and Pollard, C. (2009), "Exploring IT governance in theory and practice in a large multi-national organisation in Australia", *Information Systems Management*, 26(2), 98-109.