



Exploring The Influence Of Technology On Travel Experiences: Digital Evolution In Tourism

Chrisostomus Susmono Widagdo¹, Ray Octafian², Nina Mistriani³, Ahmad Mansur⁴

¹Tourism Economics College, Semarang, Indonesia

²⁻⁴Ambarrukmo Tourism College, Yogyakarta, Indonesia

Article Info

Article history:

Received: 31,May,2024

Accepted: 05,June,2024

Published: 30,June,2024

Keywords:

Digital transformation,
Tourism,Travel experience

ABSTRACT

The purpose of this study is to conduct a complete examination of the existing literature in order to investigate the impact that digital improvements in the tourism sector have had on the experiences that tourists have throughout their holidays. Examining the presence of online booking platforms, the incorporation of virtual and augmented reality technologies, and the application of Internet of Things (IoT) in well-known tourist sites are the primary focuses of this investigation. Through the utilization of a systematic approach to the assessment of literature, this study investigates the advancements that have been made both internationally and in Indonesia with regard to the digitalization of the tourism industry. It is clear from the findings that these aspects significantly enhance the travel experiences of tourists by making it easier for them to access amenities, facilitating more immersive interactions, and enhancing the connectivity of available facilities. On the other hand, there are still ongoing challenges that need to be addressed. These challenges include the requirement for improved regulations and a more comprehensive implementation of technology into tourism infrastructure.

Corresponding Author:

Ray Octafian,

Email: rayoctafian@stipram.ac.id

INTRODUCTION

The term "digital transformation" is used to describe the process by which the tourism industry is embracing technology in order to update and enhance the whole travel experience for customers and companies alike. The use of various digital platforms and technologies to simplify processes, increase accessibility, and personalize user experiences is at the heart of this revolution (Novitska, 2022). Dharma et al., (2024) and Tandafatu et al., (2024) state passengers may now easily plan, research, and book their trips from the comfort of their own homes thanks to online booking platforms. Many options for lodging, transportation, and things to do are available on internet platforms such as Booking.com, tiket.com, Traveloka. Using these sites, vacationers may tailor their itineraries to their own interests and budgets. With features like real-time flight updates, navigational aids, language translators, and attraction recommendations, mobile applications have quickly become an indispensable tool for travelers. Travel apps like Google Maps and Waze let people find hidden gems and make educated decisions (George, 2024; Kachniewska & Alejziak, 2024). Thirdly, AR and VR are

breaking new ground in the travel industry by improving the way customers research and plan their trips. Immersive experiences allow visitors to virtually explore different locations, observe famous landmarks, and check out potential hotels before they book. By providing virtual tours and interactive guides, the technology enhances the on-site experience even more. Smart luggage, wearable gadgets, and linked hotel rooms are all examples of the Internet of Things (IoT) that are making travel easier and more personalized for customers. Automated check-in, individualized room customization, and personalized recommendations based on prior actions and preferences are all made possible with the use of smart devices, which also make communication between service providers and visitors easier (Balasubramanian et al., 2022; Choi et al., 2022; İştin et al., 2022).

The travel industry is utilizing blockchain technology to increase efficiency, security, and transparency. Using a blockchain-based platform, travelers may safely store and manage their digital identities, passports, and travel documents, reducing the risk of identity theft and fraudulent activity (Fragnière et al., 2022; Garbani-Nerini et al., 2022; Wahyuningsih et al., 2022). Booking accommodations, purchasing plane tickets, and processing payments are just a few examples of the many activities that can benefit from the speed and security afforded by blockchain technology. By improving accessibility, personalization, and immersion, the digital revolution in the tourist sector is fundamentally altering how people experience travel. The travel industry is dynamic and ever-evolving, but firms may stay competitive by embracing technology to meet the needs and preferences of modern travelers (Linh, 2022). It is clear that Indonesia is one of several countries experiencing a digital shift in the tourism industry. There has been an uptick in the use of technology in the tourism industry around the world to boost efficiency, accessibility, and customer happiness.

Sites popular with tourists are quickly embracing new technologies, such as online booking systems, mobile apps, and augmented and virtual reality. Data analytics are used by many international tourist businesses to understand customer preferences, market trends, and passenger behavior. Because of this, they may improve the customer experience by making their offers more personalized. Hotels and airlines, two of the largest firms in the tourist industry, have changed their business models to take advantage of new digital opportunities. They put an emphasis on personalizing the customer experience, increase their presence on digital platforms, and provide a wider variety of online services (Arquilla et al., 2024; Tandafatu et al., 2024). Numerous platforms and applications provide data on eco-friendly transit options, sustainable lodging, and responsible tourism initiatives, which is being used to strengthen sustainability efforts in the tourism sector. The use of technology in Indonesia's

tourist industry is currently on the rise. Traveloka, Tiket.com, and Pegipegi are among the most popular internet booking platforms among Indonesian travelers. Digital payments, travel apps, and social media marketing of Indonesian tourist destinations are some of the new technologies that are attracting more and more attention. Startups in Indonesia's tourist industry are growing rapidly. In the realms of reservations, vacation planning, and destination management, a plethora of new businesses are offering innovative solutions. Digital tourism is becoming an increasingly important component of Indonesia's national tourism development strategy. There have been initiatives to market tourist spots online, develop apps for certain spots, and set up digital infrastructure (Dharma et al., 2024; Sumaia Afren, 2024). Despite challenges like limited internet connection and outdated infrastructure, Indonesia has made great strides in using technology to boost its tourist industry. faster investment in digital infrastructure and technological innovation can help Indonesia's tourism business grow even faster (Arici & Arici, 2022; Wahyuningsih et al., 2022). Attempts to achieve digital transformation in the tourism sector face various obstacles and challenges, both globally and in Indonesia in particular.

Tourist experiences that prioritize cultural and interpersonal exchanges may be diminished as a result of this (Tandafatu et al., 2024). There are benefits and drawbacks to digitizing the tourism business. The travel industry stands to gain a lot from digital transformation, including digital transformation, travel agencies can now provide customers with seamless and personalized experiences from the moment they book their vacation until they get their post-trip reviews. Digital transformation has optimized several activities in the tourism sector, including booking, payment, and communication, leading to greater efficiency and decreased costs (Abdelaziz & Naama, 2023; Aboushouk, 2022). This has enhanced efficiency and improved overall performance. Peer-to-peer accommodation and online travel agencies are two examples of new business models that have emerged thanks to the digital revolution and are causing a stir in the travel distribution industry. Improved environmental impact: Visitors now have access to more information and more options than ever before because to digital transformation, which has facilitated the growth of eco-tourism and responsible travel. Though there are benefits to digital transformation in the tourism industry, there are also some drawbacks, as pointed out (Abbasian Fereidouni & Kawa, 2019; Akhunova Shakhistakhon Numonjonovna, 2023; Amara, 2022). Data privacy concerns: worries about the security and protection of data have arisen since digital transformation has led to the collection and use of large amounts of personal data. Displacement from one's job: Since digital transformation has led to the automation of many tourist-related tasks, some people may find themselves out of work. Some people may not be able to benefit from digital transformation

because of the gap that has opened up as a result of the process, which has increased the gap between those with and without access to technology. Over-reliance on technology: An over-reliance on technology has emerged as a byproduct of digital transformation, which may lead to a decrease in face-to-face communication and the unique character of vacations in the long run.

In conclusion, there are benefits and drawbacks to the tourist industry's digital transformation process. There are concerns about data privacy, job loss, the digital divide, and reliance on technology being too great, despite the fact that it has enabled improved customer experiences, more efficiency, and new business models. The tourism sector needs to constantly innovate and adapt to new technology and travel trends if it wants to reap the benefits of digital transformation while avoiding its pitfalls. The government, businesses, and nonprofits must work together with other interested parties to overcome these challenges. The development of long-term, inclusive solutions and the assurance that the tourism industry's digital revolution would benefit all stakeholders equally necessitate this partnership (Wu et al., 2024; Xalxo & Shree, 2019). Along with the rise of digital technologies, the tourism industry has experienced a dramatic transformation. The study's overarching goal is to learn how tourists' perceptions of their trips have changed due to digital development in the sector.

A systematic literature review is the selected research methodology because it allows for an exhaustive analysis of the pertinent literature to identify trends, new findings, and gaps in the existing body of knowledge. Given the growing impact of technology on the way vacation memories are made, this study is crucial. Online booking platforms, mobile apps, and virtual reality technology are just a few examples of the many recent technological developments that have an impact on how passengers prepare for, participate in, and remember their trips. In order to improve the tourist experience and achieve a competitive advantage, the tourism sector needs a better understanding of how technology influences it. Even though there has been a lot of research on digital transformation in the tourism business, we still don't fully understand how technology impacts the entire trip. While many studies have examined specific parts of technology or locations, few have examined the effects of digital transformation as a whole. Therefore, by conducting a thorough review of the existing literature, this study intends to fill this information gap. Lack of research on how technology affects non-traditional aspects of travel, such connecting with locals, being environmentally conscious, and satisfying customers in the long run, is a known knowledge gap. Previous research has not provided a comprehensive picture of the global impact of digital transformation on the tourist sector because it has mostly concentrated on certain areas or technology. Thus, by conducting a more

thorough and careful analysis of the existing literature, this study intends to fill this gap. In light of the importance of both understanding the overall impact of digital transformation on the tourism industry and identifying areas that necessitate further research to fully grasp this phenomenon, this study is highly relevant.

RESEARCH METHOD

In order to evaluate the impact that digital revolution in the tourism industry has had on the travel experiences of visitors, this study employs a methodology that is based on a complete literature review. The first step in this approach is to choose keywords that are pertinent to the topic at hand, such as "digital transformation," "tourism," "technology," and "travel experiences". After that, these keywords are taken into consideration when conducting searches on a number of academic databases, including Google Scholar, IEEE Xplore, Scopus, and ProQuest, among others. Following the completion of the preliminary search, the articles are put through a screening process that is based on the inclusion and exclusion criteria that have been established beforehand. The title, abstract, and textual content of the articles are taken into consideration while selecting those that are related to the primary subject of the research. In general, publications that expressly investigate the application of technology in the tourism business and the impact that it has on travel experiences are the ones that are considered for inclusion in the criterion. The grounds for exclusion, on the other hand, include items that are either irrelevant to the topic at hand or do not comply with the required level of quality.

After going through the screening procedure, the papers that were chosen were subjected to a thorough examination in order to uncover essential discoveries, trends, and variations in study techniques and results. Each article's material was meticulously documented, and then it was integrated with the information from the other articles to produce a thorough picture of the research subject. In addition, the quantity of articles retrieved from the first search, the number of articles that fulfilled the inclusion criteria, and the final count of articles that were included in the analysis were all documented in order to guarantee transparency and maintain the integrity of the methodology.

Researchers are able to conduct an exhaustive investigation of the current literature on digital transformation in tourism by using the systematic literature review technique. This allows them to identify significant results and gaps in knowledge. This study has the potential to provide valuable insights into the ways in which technology influences the journey experiences of passengers and to establish the framework for additional exploration in this sector. Methodical and well-documented approaches will be utilized in the research project.

RESULTS AND DISCUSSIONS

Due to the advent of digital transformation, the tourism industry has been subjected to significant transformations. Visitors now have the opportunity to enhance their travel experiences through the use of technologies such as online booking platforms, virtual reality (VR) technology, augmented reality (AR) technology, and the Internet of Things (IoT). The findings of this study make it abundantly evident that the aforementioned elements significantly improve the travel experiences of tourists. Passengers have access to a greater variety of options available to them through online booking platforms, which also simplify the procedure for them. In addition, the technology of virtual reality (VR) and augmented reality (AR) has completely altered the way in which tourists experience and appreciate the locations they visit. In addition, the implementation of the Internet of Things in tourist destinations has resulted in the creation of more intelligent amenities as well as enhanced and more interconnected experiences. In order to ensure that the digital transformation of the tourism industry is carried out without any interruptions, it is absolutely necessary to encourage collaboration between marketers, governments, and other important parties. The formation of this partnership is necessary in order to guarantee the effective exploitation of technology and the positive impact that it has on the travel experiences of tourists.

Within the tourism industry, the processes of booking, lodging, and passenger transportation have been streamlined and sped up because to technological advancements. Booking systems that are accessible online make it easier for tourists to obtain information, select their preferred options, and make reservations for various tourism-related goods and services. In addition, technology such as Virtual Reality (VR) and Augmented Reality (AR) make it possible for tourists to virtually experience and investigate their destinations before really going there. When Internet of Things (IoT) technology is implemented in tourist destinations, it speeds up the management and coordination processes. These processes include the scheduling of transportation, the booking of rooms, and the operation of information.

The quality of information and communication is improved as a result of digital transformation, which also has an effect on the experiences that travelers have. Information that is relevant to tourists, such as pricing, timing, and specifics about tourist destinations, is now more easily accessible to tourists. Additionally, the technology of virtual reality (VR) and augmented reality (AR) makes it possible for tourists to experience their destinations in a manner that is significantly more immersive. The incorporation of the Internet of Things makes it possible for tourists to streamline the management of information and arrangements in a more efficient manner.

Additionally, digital transformation has an impact on the experiences of travelers by elevating the quality of service provided. Tourism services have the potential to attain higher intelligence, enhanced integration, and enhanced efficiency through the usage of technology. Additionally, the digital transformation makes it easier to develop tourism offerings and services that are more unified and efficient.

In order to make the transition to digital transformation in the tourism industry as smooth as possible, it is absolutely necessary to encourage collaboration between marketers, governments, and any other important parties. The formation of this partnership is necessary in order to guarantee the effective exploitation of technology and the positive impact that it has on the travel experiences of tourists. Because of this teamwork, it is possible to develop strategies and agreements that are more effective, and it also makes it possible to reduce risks more effectively.

CONCLUSION

Within the context of the digital transformation, the employment of technology has brought about significant changes in the tourism industry. New opportunities for enriching the journey experiences of tourists have emerged as a result of the proliferation of various online booking platforms, the incorporation of virtual reality and augmented reality technology, and the adoption of the Internet of Things (IoT). Based on the findings of this literature review, it appears that these elements have a considerable positive influence on the travel experiences that tourists have. By utilizing online booking systems, passengers now have access to a greater number of options and a greater degree of accessibility. Additionally, virtual reality and augmented reality technology have introduced a new way for travelers to enjoy their locations. In addition, the implementation of Internet of Things technology in tourist destinations results in the creation of more intelligent facilities and encourages consumers to have an experience that is more interconnected and immersive. But in order to ensure that the digital transformation of the tourism industry is carried out successfully, it is absolutely necessary for service providers, governments, and other stakeholders to work together in a cooperative manner. This collaboration is essential in order to guarantee that technology is utilized effectively and makes a significant contribution to the enhancement of the travel experiences of tourists.

REFERENCES

- Abbasian Fereidouni, M., & Kawa, A. (2019). Dark side of digital transformation in tourism. In Lecture notes in computer science (including subseries lecture notes in artificial intelligence and lecture notes in bioinformatics) (Vol. 11432 LNAI, pp. 510–518). https://doi.org/10.1007/978-3-030-14802-7_44
- Abdelaziz, M., & Naama, A. (2023). The impact of digital transformation dimensions on the employees' job performance: Applying on four and five star hotels in the Red Sea Governorate. *Journal of Association of Arab Universities for Tourism and Hospitality*, 24(1), 436–466. <https://doi.org/10.21608/jaauth.2023.241768.1512>
- Aboushouk, M. A. (2022). The impact of employees' absorptive capacity on digital transformation of tourism and travel services: Evidence from the Egyptian travel agencies. In *Eurasian studies in business and economics* (Vol. 23, pp. 167–184). https://doi.org/10.1007/978-3-031-14395-3_9
- Akhunova, S. N. (2023). Concerns regarding the use of foreign experience and the significance of using digital technologies to boost the tourism network's competitiveness. *Qo'Qon Universiteti Xabarnomasi*, 9, 245–249. <https://doi.org/10.54613/ku.v9i9.885>
- Amara, D. F. (2022). Measuring the impact of Industry 4.0 technologies and organization learning on creating value-based digital transformation in tourism. In *Journal of the Faculty of Tourism and Hotels-University of ...* (Vol. 6, Issue December, pp. 124–133). https://mfth.journals.ekb.eg/article_280647_40d51569a101536fbbec0d1b01ad31c1.pdf?lang=en
- Arici, H. E., & Arici, N. C. (2022). Socio-technological sustainability in tourism. In *Sustainability, big data, and corporate social responsibility* (pp. 111–132). <https://doi.org/10.1201/9781003138051-8>
- Arquilla, V., Caruso, F., Genco, D., & Parise, C. (2024). Designing a new user experience for the travel sector: A research project reimagining the role of travel stakeholders in the digital post-pandemic age. In *Springer series in design and innovation* (Vol. 37, pp. 555–568). Springer. https://doi.org/10.1007/978-3-031-49811-4_53
- Balasubramanian, K., Kunasekaran, P., Konar, R., & Sakkthivel, A. M. (2022). Integration of augmented reality (AR) and virtual reality (VR) as marketing communications channels in the hospitality and tourism service sector. In *Innovation and brand development* (pp. 55–79). https://doi.org/10.1007/978-3-030-95581-6_3
- Choi, Y., Hickerson, B., Lee, J., Lee, H., & Choe, Y. (2022). Digital tourism and wellbeing: Conceptual framework to examine technology effects of online travel media. *International Journal of Environmental Research and Public Health*, 19(9). <https://doi.org/10.3390/ijerph19095639>
- Dharma, F. P., Anwar, N., & Syaifullah, S. (2024). Technology advances and innovation in wine tourism: New managerial approaches and cases. *European Planning Studies*. <https://doi.org/10.1080/09654313.2023.2293898>

- Fragnière, E., Sahut, J. M., Hikkerova, L., Schegg, R., Schumacher, M., Grèzes, S., & Ramseyer, R. (2022). Blockchain technology in the tourism industry: New perspectives in Switzerland. *Journal of Innovation Economics and Management*, 37(1), 65–90. <https://doi.org/10.3917/jie.pr1.0111>
- Garbani-Nerini, E., Korkut, S., & De Ascaniis, S. (2022). Better: Digital media can make tourism experiences at heritage destinations better. In *Handbook on heritage, sustainable tourism and digital media*. <https://doi.org/10.4337/9781788970082.00018>
- George, A. (2024). Navigating the digital transformation: Unveiling Industry 4.0 challenges and preparing for Industry 5.0. In *Industry 4.0 transformation towards Industry 5.0 paradigm - Challenges, opportunities and practices* [Working Title]. <https://doi.org/10.5772/intechopen.1004152>
- İştin, A. E., Eryılmaz, G., & Üzülmöz, M. (2022). Technology applications in the Asian tourism industry in future. In *Technology application in tourism in Asia: Innovations, theories and practices* (pp. 441–469). https://doi.org/10.1007/978-981-16-5461-9_27
- Kachniewska, M., & Aleziak, W. (2024). Drivers, changes and outcomes of digital innovation in tourism. In *Folia Turistica*. [http://folia-turistica.awf.krakow.pl/attachments/article/433/Folia Turistica Call for Papers vol 63 2024 Kachniewska.pdf](http://folia-turistica.awf.krakow.pl/attachments/article/433/Folia_Turistica_Call_for_Papers_vol_63_2024_Kachniewska.pdf)
- Linh, N. D. Y. (2022). Influence tourists' intention to visit Vietnam through YouTube vlogging. In *The proceedings of International Conference 2022*. https://www.researchgate.net/profile/Bao-Bui-14/publication/359539161_The_Proceedings_of_International_Conference_2022_Covid-19_Digital_Transformation_and_Tourism_Resilience/links/624319427931cc7ccf032e66/The-Proceedings-of-International-Conference-2022-Covid-19-Digital-Transformation-and-Tourism-Resilience.pdf
- Novitska, L. (2022). Digital technologies as the basis for development tourism activities in Ukraine. In *Global trends and prospects of socio-economic development of Ukraine*. <https://doi.org/10.30525/978-9934-26-193-0-7>
- Sumaia, A. (2024). The role of digital marketing promoting tourism business: A study of use of the social media in promoting travel. *World Journal of Advanced Research and Reviews*, 21(1), 272–287. <https://doi.org/10.30574/wjarr.2024.21.1.2668>
- Tandafatu, N. K., Ermilinda, L., & ... (2024). Digital transformation in tourism: Exploring the impact of technology on travel experiences. *International Journal of ...* <https://journal.ppipbr.com/index.php/multi/article/view/92>
- Wahyuningsih, T., Sentosa, I., & Hizam, S. M. (2022). Technological policy guidance on rural tourism sustainability in Indonesia. In *Digital transformation in aviation, tourism and hospitality in Southeast Asia* (pp. 161–176). <https://doi.org/10.4324/9781003315179-15>

- Wu, L., Fan, A., Hou, Y., & Wei, W. (2024). Unlocking the transformative power of hospitality and tourism experiences: Towards theoretical syntheses and research agenda. *Journal of Hospitality and Tourism Research*. <https://doi.org/10.1177/10963480241230952>
- Xalxo, M. M., & Shree, M. V. (2019). A study on digital transformation in tourism sector- Challenges and opportunities. *International Journal of Research and Analytical Reviews*, 6(1), 203–212. <http://www.ijrar.org>