

# Systematic Review: The Role of Transport in Tourism Development

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#### **Article History**

Received: 29 / 09 / 2025

Accepted: 17 / 10 / 2025

Published: 22 / 10 /2025

Abstract: A major important and closely related aspect of tourism is transport, which has a significant impact on both accessibility and economic development. This study appraised the critical role of transportation in the tourism industry, identifying transport infrastructure as a key determinant of tourism. Key concepts explored in this study include accessibility of tourism and transport, connectivity, technology, and sustainability. Key findings in this synthesis revealed that transportation is crucial to the development of tourism as it promotes access to locations as well as the growth of tourist arrivals and economic benefits. The study also found out that, cutting-edge information technologies in transportation, such as intelligent ticketing and dynamic routing, helped to rationalize and personalize transportation. This research synthesis also emphasized the fact that transport system, particularly the carbon portion, presents sustainability challenges for tourism to operate. This study concludes that transportation plays an important part in the development of tourism industry, while also advocating for green transportation to assist the expansion of sustainable tourism.

Keywords: Accessibility, Sustainability, Transportation, Tourism, Tourism Development.

**How to Cite in APA format:** JEGEDE, A. O., OLASEMOJO, R. O. & OGUNLEYE, O. S. (2025). Systematic Review: The Role of Transport in Tourism Development. *IRASS Journal of Arts, Humanities and Social Sciences*, 2(10),73-81.

# Introduction

It has become almost rhetoric to underscore that transportation and tourism development are two interdependent notions with great potentials to impact their respective industries (Dharmaratne. et al., 2023; Kovačić and Milošević, 2016). In reality, it is not easy to perceive tourism without paying sufficient attention to transport (Usman, 2016). According to Coralia (2020), transport is depicted as a network of structures and strategies that enable individuals and goods to travel from one place to another through road, railway, aerospace and water bodies. Regarding the concept of tourism development, analysts agree that it refers to the process of creation and promotion of destinations to attract tourists and enhance their quality of stay as well as stimulate development within the economy (Camilleri, 2024; Kokkranikal, Cronje and Butler, 2011; Manhas, Manrai and Manrai, 2016; Soteriades and Avgeli, 2007). The connecting point here is that the relevance of transport in tourism cannot be overemphasized as it connects tourists from one region of the world to another exposing them to new environment and terrain. Emphasizing the intricate inter-link between transportation and tourism development, Coralia (2020), Kanwal et al. (2020) and Jangra et al. (2024) contended that reliable and effective transportation is, in fact, a pre-requisite for tourism because it brings in tourists to places and carries them to various tourists' spots to promote the industry and strengthen the local economies. This is further buttressed by a 2014 Global report by the International Air Transport Association (IATA) in which, it was established that the airlines transported 3.3 billion people across nearly 50,000 routes creating about 58 million of employment and \$2 trillion of economic impact highlighting the importance of aviation throughout tourism globally (Westcott et al., 2014).

In historical literature, scholars such as Dinu (2018) have pointed out that transportation has remained one of the key ingredients dubbed to have propelled tourism as it provides the channel through which people and products get to their area of interest. Berechman (2003) recounted that back in the old days of mankind, the development of physical structures for example, the roads such as the one built by Romans in the early tourism days, was made easy; enabling people and products to freely move from one region to the other. Buttressing this narrative, Dinu (2018) argued that steam engines that prevailed in the nineteenth century greatly revolutionized tourism through the supply of rail transport influencing the accessibility of destinations. In reality, this period marked a very significant increase in the growth of tourism most especially on the European sea-side resorts with increased turnout of travelers. In support of this submission, Rodrigue (2020) noted that by the end of this period, cruise had transformed into a new strand of tourism, where people travelled around the world's ports and benefitted the economies of those nations. As observed by Sorupia (2005) and Dinu (2018) the start of the twentieth century brought colossal changes in transport and tourism through automobiles and aircraft making distance travelling easier, smoother and cheaper. Going back to the memory lane, Westcott et al. (2014) elaborated that the first commercial passenger flight in 1914 was a promising start on a new era that provided a new opportunity in travelling which make distant places readily and conveniently accessible. Further sealing this argument, Disu (2018) narrated that commercial flights in the middle of the twentieth century opened a window toward international tourism as tourists' arrival stood at 25 million in 1950. Even more importantly, car travel has a significant impact on the tourism industry, accounting for 77% of total visitor movements, demonstrating its significance in growing domestic and regional tourism (Rodrigue, 2020).





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According to estimates from the United Nations World Tourism Organisation (UNWTO), foreign tourism reached approximately 1.5 billion in 2019 (Dinu, 2018; Jangra *et al.*, 2024). Today, transport continues to be one of the focal areas of tourism through the revolutionized high-speed rail and low-cost carriers which not only enhance the option of tourists but also builds the tourist economy of the tourist destinations around the globe (The Sustainable Commuter 2023; Usman 2016). Further furnishing this discourse with illustrative analysis, studies including Kurihara and Wu (2016), Li, Yang and Cui (2019), as well as Li and Chen (2020) have all noted that the increased availability of high-speed train systems and shorter travel times has resulted in a significant increase in local tourism in countries like China and Japan.

Regarding this relationship between transport and tourism from economic angle, the World Trade and Tourism Council (WTTC) report revealed that, tourism industry provides a lot of value-addition to the economy far back 2019, it supplied 10.5% of global employment and 10.4% of GDP (Rodrigue, 2020, Soja, 2022; World Bank, 2022; WTTC, 2024). This alone showed that expenditure by foreign tourist in the year ended 2019 was 1.91 trillion US dollar evidencing the flow of financial capital through tourism in the global economy (WTTC, 2024). These illustrations show a relationship between transport and tourism, where the provision of efficient and convenient transport facilities is instrumental to economic growth of transport facilities. Going by the submissions of Nutsugbodo, Amenumey and Mensah (2018) as well as Coppola et al. (2020), the truth remained that accessibility is part and parcel of tourism transport taking into consideration the point that accessibility factor determines the appeal and visitor traffic of a particular region. This is underpinned by the understanding that where attractiveness of places for potential visitors is enhanced by improved transport systems, not only does the accessibility increases but also the development of tourism as a sector is facilitated (Feng et al., 2023; Jangra et al., 2024; Khadaroo and Seetanah, 2007; Nguyen, 2021). This is evident from the ongoing efforts which are being implemented and advanced by planners, scientists, policy makers and other players in the transportation sector in order to improve the quality and availability of transport services to the tourists.

Despite the aforementioned advantages of transport in promoting the advancements of the tourism sector, it is however pertinent to note that transport do not always complement tourism successes. In the context of transport and tourism, there is a continuous negative impact on the environmental aspect, including, but not limited to CO2 emissions. Buttressing this argument, Yan and Phucharoen contended that the global emissions of CO2 through tourism transport increased in an aggregate manner by  $24,559.3081 \times 10^4$  tonnes between 2010 and 2018, and the scale effect was determined to be the most dominant factor influencing these emissions. This emphasizes the importance of looking for safe modes of transportation to assist minimize the tourist industry's carbon footprint.

The need to make contribution to the ongoing discourse on this subject stems from the realization that as tourism sector grows, there tends to be increased interest on appropriate, efficient and sustainable means of transport. The remaining part of this article will be designed towards addressing conceptual concerns regarding this topical discourse, the role of transport in the development of tourism, the impact of transport on the development of tourism, and concluding remarks.

# **Conceptual Issues**

Having established in this study that transport and tourism development are inextricably linked, this section of this article addressed some of the conceptual concerns raised in literatures regarding the role of transportation in tourism development. They are adumbrated in headings as

## Accessibility and Connectivity

Transport and tourism are inextricably intertwined, driven by two key factors: accessibility and connection (Toth and David, 2010). Accessibility refers to tourists' ability to reach a given destination, whereas connectedness relates to the network of links that allow people to travel between locations (Gillovic and McIntosh, 2020). These concepts in the views of Jangra et al. (2024) are important because they determine the success and feasibility of a tourism location, as well as the number of tourists and their characteristics. For example, Mihai et al. (2023) pointed out that Europe has witnessed a development of high-speed rail connections that enhanced the tourism movement between states, such as the Eurostar service connecting London with Paris and Brussels, and that has made travelling faster and easier. Similarly, Duval (2007) averred that favourable topographical characteristics can turn previously isolated or even less developed areas into major tourist destinations. This submission is well reflected in the opinions of Shareef and McAleer (2007) as well as Shareef and McAleer (2008) that easier access to isolated domains of geographic destination such as islands or territories has a substantial impact on the flow of tourist traffic in a country, as exemplified by enhanced flight connectivity in the Maldives that translated to improved international tourist traffic that defined the largest segment of the country's GDP. Studies have also revealed that destinations that benefit from direct flights have better tourist arrival rates, thus strengthening the argument that transport plays a critical role in determining the level of tourism demand (Baker, 2014; Bieger and Wittmer, 2006; Tang et al., 2023). In fact, greater airport accessibility in SEA has boosted tourism development, with more international tourists visiting Thailand and other countries, such as Singapore and Bangkok, for instance, because of better flight connections and reduced time of travel (Ward, 2023; Vietjet Air, 2022). Aligning with the view of Andrews (2024), the unifying thread in this discussion is the concept that locations connecting to more places have a more diverse and varied tourism industry, and hence travellers encounter more destinations, improving their vacation. However, lack of transport infrastructure is actually destructive to the growth of tourism since destinations inevitably become tougher to access and therefore less attractive. For example, areas with poor road connectivity or limited access to public transportation experience low tourist arrivals, which in turn limit economic opportunities (Luthuli et al., 2021).

# Technological Advancement in Transport

Cutting-edge transportation technology is seen as an essential component in the argument regarding the place and function of transport within tourism (Rodrigue, 2020). Contributing to this discourse, Dinu (2018) maintained that technological advancement in transport changes the infrastructure of the transport sector and has its profound impact on the tourism patterns, reach, and accessibility. This advancement has made travelling easier, convenient, accessible, and tourism more appealing and diverse. Giving an illustrative analysis on this, Zhang (2021) and Jiang et al. (2022) pointed out that high-speed

rail transport and improvement in efficiencies in aviation mean that even once unapproachable destinations can now be reached within hours. As a matter of fact, scholars are of the consensus that the deployment of smart technologies like the global positioning system, the online booking arrangements, and the and the real-time monitoring system has added value to the travel experience, making it easier for tourists to schedule, locate, and enjoy the trip (He, Fan, and Fu, 2009; Namada, 2023; Sábio, 2024; Sustacha, Banos-Pano, and Del Valle, 2023). Similarly, Sustacha, Banos-Pino, and Del Valle (2023) contended that immediate tracking and utilisation of smart technologies increase tourist satisfaction, thus increasing demand and encouraging tourism development. The scholars further noted that advancements in transport technology have contributed to the emergence of specialised tourism segments. This has contributed to the development of diverse tourism types such as eco-tourism and adventure tourism, as it has become safe and efficient to undertake such travels to previously unreachable natural landscapes (Pandiyan, 2024; Sustacha, Banos-Pino, and Del Valle, 2023). These technological advancements, according to Sustacha, Banos-Pino, and Del Valle (2023), not only foster mass tourism but also sustainable tourism, since better technology and more sustainable modes of transportation make travel more environmentally friendly. Nevertheless, there are stiff challenges that have come hand in hand with this technological advancement. Critiquing this submission, Boopen (2006) and Rodrigue (2020) argued that areas possessing technologically enhanced means of transport are likely to be more developed in tourism than the regions that retain outdated transport infrastructure. For example, research on transportation and tourism in Nigeria revealed how the areas that have an old-fashioned transport network lag behind in tourism development compared to areas with modern transport facilities (Musa, 2011). Apart from the issue of transport infrastructure, Rashid (2023) maintained that due to the advancement in transport technologies, the environmental effects associated with higher levels of tourism are still on the rise, necessitating sustainable transport that accommodates growth without compromising on the environment (Rashid, 2023).

#### Sustainability in Transport and Tourism

Sustainability has taken centre stage in transport and tourists interaction, and it has become a key concept in the continuous discussion of tourism growth in relation to transportation. This framework underlines that key goal is to integrate economic development, social equity, and environmental conservation in tourism transportation (Gössling et al., 2020). According to Lohmann and Netto (2017), sustainable transport is not just the fight against environmental impacts but the improvement of access and backing of the local economy. As a matter of fact, the recent COVID-19 pandemic crisis provides a fantastic illustration of how this concept is applicable, as Gössling, Scott, and Hall (2020) acknowledged it as an opportunity to redesign tourism systems and transportation networks with a view to making them more sustainable. However, Bramwell et al. (2017) noted that implementing sustainable transportation solutions in tourism is a difficult process due to conflicts of interest and policy objectives. These have become the areas of interest for recent research efforts in an attempt to find distinct solutions to increasing the scope of sustainable tourism, such as slow travel (Dickinson et al., 2019) or the use of technology in minimizing unsustainable modes of transportation within the tourism domain (Peters et al., 2018). Following this line of thought, this conceptual perspective appears to be one of the most effective techniques for assessing

and combating the dynamic duality of transportation/tourism and sustainability.

#### **Cultural and Social Concerns**

Cultural and social variables appear to remain a major conceptual focus on transportation in tourism development, opening up new avenues for normative considerations of tourism transport. This approach focuses on the local implications on communities as well as the cultural and social components of tourism transit. According to Tribe and Liburd (2017), solutions for tourist transportation have to take into account both culture and diversity. In the opinion of Dodds and Butler (2019), the framework also considers the concern of over-tourism by noting that the means employed to get to the tourist destination can either worsen or minimise the effect of mass tourism on cultures and societies of destination areas. Hess et al. (2019), Wondirad and Ewnetu (2019), Adebayo and Butcher (2023), and Sharma and Bhat (2023) also hold a similar opinion of supporting the community to implement transport facilities in the tourism sector to support cultural imperative and social sustainability. This, as a matter of fact, makes this framework significant, with Sigala (2020) asserting that COVID-19 depicted the weakness of the tourism sector and the need for culturally sensitive and more tolerant transport systems. Gössling (2020) further noted that the recent pandemic affected travel habits and cultural experiences in tourism destinations.

#### **Policies and Regulations**

Policies and regulations constitute a significant and influential conceptual consideration essential for comprehending the role of transportation in tourist advancement. In a real sense, this framework underscores the importance of governmental/institutional interventions in the co-creation of sustainable/efficient transport systems for tourism. Contributing to this discourse, Gossling et al. (2021) rightly pointed out that policy measures should be a focus of tourism-related transport-related impacts, including the environment and climate change. According to Lohmann and Netto (2019), effective regulation in the tourism industry could act as a means to stimulate further development of transport technologies and practices required for sustainable tourism development. This has particularly become a conceptual issue even more because of the COVID-19 pandemic, as policy responses to the crisis have fundamentally altered tourist and mobility practices, as pointed out by Sigala (2020). Hall et al. (2020) suggest that the formulation of post-pandemic measures would help to enhance the shift to improved post-COVID-19 tourism transport systems and practices. Nevertheless, according to Dredge (2019), Adu-Ampong and Kimbu (2020), and Amore (2024), decision-making in this sphere could face difficulties because, on the one hand, this policy has to foster economic, environmental, and social outcomes, and on the other hand, it has to address a plurality of stakeholders.

# Methodology

This study adopted a systematic review methodology to identify, evaluate, and synthesize relevant academic literatures on the role of transport in the development of tourism.

#### Research Design

A qualitative systematic review design was adopted. This method critically appraises and synthesizes existing literatures based on predefined criteria.

#### **Data Types and Sources**

Peer-reviewed journal articles, books, and conference papers were sourced from databases.

#### **Data Extraction**

Relevant data such as authorship, year, geographical focus, transport mode, tourism impact, and key findings were extracted using a standardized coding system.

#### **Data-Synthesis**

A qualitative synthesis was used to identify patterns, trends, and gaps in the literature. A thematic analysis was used to organize findings under relevant categories such as transport modes (air, road, rail, sea) and their impact on tourism.

#### **Ethical Considerations**

As this study involves secondary data (existing literature), no ethical clearance is required. Proper citation and referencing were observed.

# Transport as an Enabler of Tourism

Transportation is an important component of tourism's growth and operation because it serves as the primary link between tourists and destinations, as well as the means of mobility inside tourism sites. The following sections cover discussions of the role of transportation in enabling tourism.

#### **Enhancing Destination Accessibility**

The role that transport infrastructure can play in the accessibility of destinations to tourists cannot be overemphasized. This is perhaps illustrated in the scenario of air transport, where international tourism experience has rapidly grown. A study by Koo et al. (2017) showed that there is a highly significant causal effect of direct air services, particularly for tourism demand for far destinations. For instance, the direct flights between the South Korean and Croatia boosted the tourist arrivals of Korean tourists to Croatia.

#### **Facilitating Intra-Destination Mobility**

When tourists arrive in a new location, having access to reliable local transportation can significantly improve their enjoyment of their vacation. Research by Gutiérrez and Miravet (2016) stressed the role of public transport in the tourism sector, arguing that aspects like frequency, price, and geographic network strongly determine the use of public transport among tourists. For instance, the study found that tourists' use of public buses in Mallorca, Spain, was highest when they determined that the buses were frequent and cost-effective.

# **Creating Tourism Experiences**

Looking at this as a transport-related enabler of tourism, the fact remained that the actual movement and transportation frequently fall under the umbrella of tourism. An obvious example of this is cruise tourism, where the transportation service doubles as lodging and a floating tourist destination. As noted by de Grosbois (2016), cruises could provide lodging, food, and entertainment in addition to multiple trips to various locations.

#### **Enabling Niche Tourism Forms**

The advancement of transportation technology has allowed other types of tourist marketing to become more effective. For instance, Rantala et al. (2018) used case studies to outline various opportunities that enabled the development of industries as the areas were made easily accessible. The phenomenon can be

characterized using Finnish Lapland and the winter scenery, which are open for snowmobile tours due to their capacity to reach previously inaccessible locations.

# **Supporting Sustainable Tourism Practices**

The impact of tourism is evolving, and new transportation technologies aid in sustainable tourism. Amplifying this discourse, Higham et al. (2019) analysed the impact of self-driving tourists and if electric vehicles could lower carbon emissions. The study considered the cases of Norway and New Zealand, where authorities are encouraging the use of EVs to improve tourist mobility through the development of charging stations and incentive programmes.

#### **Mitigating Seasonality Effects**

The availability of transportation infrastructure could help tourism locations overcome the seasonality barrier given that they could be travelled to year-round. Giving an illustration on this, Falk and Vieru (2019) demonstrated how improved access to airports stands to extend the tourism season in winter locations. Their empirical analysis for Finnish Lapland revealed that increased airline accessibility could help to spread out the tourists' peak during the winter rather than focusing on the Christmas season.

#### **Fostering Regional Economic Development**

Transportation infrastructure development initiatives typically result in increased tourism and general economic development in regions. Amplifying this argument, a study by Osorio-Molina Muñoz-Benito and Pérez-Neira (2023) revealed a positive correlation between tourism development and economic growth. In reality, improved transportation leads to increased tourism activity, which promotes economic activity in the area.

# **Enhancing Crisis Resilience**

Strengthening transportation links could serve as a security blanket against unforeseen challenges for the tourism industry. Sigala (2020) expounded on how a broad and well-established system could benefit the tourism industry in the face of unexpected events, such as the recent COVID-19 global outbreak. The study also found that nations with well-developed domestic transportation infrastructures were better positioned to convert to domestic tourism under global constraints.

# **Integrating Smart Technologies**

Transportation infrastructure development programmes, which are common, often lead to enhanced tourism and overall economic advancement in areas. Supporting this claim, Osorio-Molina Muñoz-Benito and Pérez-Neira's (2023) study has shown that the improvement of the tourism sector was making a positive impact on the economy. In fact, the enhanced transport leads to high tourism, and this enhances economic activities within the region.

# **Enabling Virtual and Hybrid Experiences**

Although it cannot fully substitute the physical transport, virtual reality (VR) and augmented reality (AR) are enhancing the possibilities of traditional tourism, which enable people to 'virtually visit' locations. According to Buhalis et al. (2019), these technologies are used in three different contexts: before, during, and after a trip. The scholars further explained how VR is being used to deliver virtual educational tours and potentially impact the physical movement of tourists.

# The Role of Sustainable Development Goals (SDGs) in Addressing the Challenges of Transport on the Development of Tourism

#### SDG 8: Decent Work and Economic Growth

**Target 8.9** aims to "devise and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products."

- Relevance: Transport infrastructure directly supports tourism by enhancing mobility and access to destinations, which in turn stimulates employment, promotes local businesses, and increases revenue in tourism-dependent regions. This study helps highlight which transport systems most effectively support tourism-led economic development.
- SDG 9: Industry, Innovation and Infrastructure

**Target 9.1** emphasizes the development of "quality, reliable, sustainable and resilient infrastructure, including regional and trans-border infrastructure."

- Relevance: Transport infrastructure is a cornerstone of tourism development. This review assesses how innovations in road, air, rail, and maritime transport contribute to regional and cross-border tourism. By systematically analyzing the impact of transport systems, the study contributes to evidence-based planning and infrastructure investment aligned with sustainable development.
- SDG 11: Sustainable Cities and Communities

**Target 11.2** aims to provide "access to safe, affordable, accessible and sustainable transport systems for all."

- Relevance: Tourism depends on well-connected, accessible cities and destinations. This study explores how sustainable transport options (like mass transit, cycling infrastructure, or green mobility solutions) support inclusive tourism, particularly in urban and heritage sites. It also reflects on how transport enhances or detracts from the sustainability of communities.
- SDG 12: Responsible Consumption and Production

**Target 12.b** encourages sustainable tourism policies and practices that monitor sustainable development impacts.

- Relevance: A critical component of this review is understanding the environmental impacts of various transport modes (e.g., carbon emissions from air travel vs. rail). The study supports the identification of transport policies and systems that promote responsible and low-impact tourism practices.
- SDG 13: Climate Action

**Target 13.2** advocates for integrating climate change measures into national policies and planning.

- Relevance: The tourism sector contributes to greenhouse gas emissions, largely through transport. By evaluating how different transport systems affect tourism and the environment, this review informs climate-smart tourism planning and encourages a shift toward greener mobility options within the tourism industry.
- SDG 17: Partnerships for the Goals

**Target 17.16** promotes global partnerships that mobilize and share knowledge, expertise, and technologies.

 Relevance: A systematic review synthesizes global evidence and best practices. This study encourages knowledge exchange across regions on transport and tourism policies, providing a foundation for collaboration among governments, private sector actors, and researchers to advance sustainable tourism development.

#### **Impact of Transport on Tourism**

Transportation in the tourism industry could be likened to the metaphorical central nervous system, connecting travellers and tourists to their destinations. This part of the study is designed towards identifying the effects of transport on tourism. These impacts are discussed in the following headings.

#### **Shaping Destination Accessibility and Competitiveness**

The development of transportation infrastructure in general has an inverse relationship with accessibility, which determines the destination's competitive position in today's highly competitive global tourism industry. Koo et al. (2017) proved that opening new routes was capable of generating a significant number of tourists. The scholars revealed that the growth of flights from South Korea to Croatia aided in increasing tourist arrivals from the latter to the former, demonstrating how the availability of flight connectivity opens up new markets for destinations.

#### Impacting Tourist Experiences and Satisfaction.

Logistics services in a specific location are closely related to client satisfaction and experience as visitors. The study supports the findings of Mandić et al. (2018) that transportation infrastructure influences customer perceptions of destinations. In reality, the accessibility and availability of good public transportation facilitate easy access to tourist destinations, increasing the convenience of travel. According to a study by Disanayake and Salith (2019), integrated public transportation improves not just the travel experience but also the destination's reputation, considering the point that visitors associate good transportation with enjoyable vacations. In addition, adequate transportation facilities will also enhance the quantity of leisure options for the tourists as well as augment their visit (Jangra *et al.*, 2024).

#### **Exacerbating Environmental Problems**

Transport is considered one of the key factors that help to expand the sphere of tourism and at the same time contributes to the negative impacts. Gössling and Humpe (2020) estimated global tourism's contribution to emissions as approximately 8%, with transportation as the single largest source. The scholars in their report also agreed with the argument that long-haul flights present a significant challenge, where 1% of the world's population is responsible for half of aviation emissions.

# **Driving Economic Development**

Transport investments have a strong relationship with advances in the tourism industry and regional economy. Studies including Franciscone, Zou, and Fernandes (2024) contended that there is a significant correlation between improved aircraft connectivity and sustainable tourist development, particularly in developing nations. Similarly, Liu, Wan, and Zhang (2021) averred that land connectivity promotes visitor movement, which boosts tourism expenditure and arrivals, thereby supporting the local economy.

#### **Enabling New Forms of Tourism**

The development of new forms of tourism has been facilitated by the advancement of transportation technology. As it was pointed out earlier in this study, Rantala et al. (2018) provided insights into how accessibility has enabled growth of adventure tourism, stating that snowmobile tours business in Finnish Lapland has greatly benefited in winter since the area is inaccessible by any other means of transport. As Li et al. pointed out, the increase in metro systems in Chinese cities led to changes in the spatial location of tourist attractions, thus changing the characteristics of traditional tourist areas.

#### **Impacting Tourism Destination Spatial Patterns**

Networks of good transit routes go a long way in explaining the spatial distribution of activity related to tourism. Continuing this line of reasoning, Gutiérrez et al. (2020) found that tourist flows in Spanish rural tourism destinations depended on the amount of road connections and distances from the sites.

#### **Mitigating Seasonality**

The problem of seasonality could benefit destinations when more transportation means are established. Duro and Turrión-Prats (2019) used a case study of Spanish coast resorts to demonstrate that increased intermodal connectivity resulted in a 15% reduction in seasonality of tourist arrivals. Similarly, Buckley et al. (2017) revealed that improvements in access by air transport in those parts of Australia increased summertime ecotourism by 40%.

#### **Influencing Over-tourism and Carrying Capacity**

Transportation is essential to the growth of accessibility to increase tourism, as it makes a number of well-known tourist destinations accessible, but it also directly promotes over-tourism to some extent in particular places. Oklevik et al. (2019) investigated if increased accessibility increases tourist pressure in sensitive places. The scholars emphasized the significance of the tourism management methods by citing the increase in cruise liner trips and the upgraded roads in Norway's fjord region, which also translates into crowds and issues in some regions.

### Facilitating Crisis Recovery and Resilience

Industry resilience is a fundamental principle of sociotransportation infrastructures, and it is particularly relevant to the tourism industry emerging from a time of crisis. Sigala (2020) argued that a variety of flexible mobility solutions could help the travel and tourism sector respond to developments like the recent global COVID-19 outbreak.

# **Contributing to Smart Tourism Experiences**

The integration of sophisticated informational technologies into the transportation sector signifies the inception of a novel epoch within the tourism domain. Based on the aforementioned information, transportation services have been depicted as having reaped advantages from information technology in the following manners that fulfill the objective of smart tourism to amplify the competitive edge among diverse destinations: Femenia-Serra et al. (2019) argued that integration of mobility applications with real-time information has been performed to optimize navigation and route finding with the aim of improving tourist satisfaction and subsequently access to the most popular tourist destinations. Moreover, the use of smart ticketing systems, such as contactless payments for transit, has been beneficial for offering economically

affordable means of travel within the specified area for the travellers (Sharma *et al.*, 2021).

# **Conclusion Remarks**

It is evident from this review that transportation mechanisms and tourism development cannot be ignored when analyzing the performance of the tourism sector. In the same way, a similar contextualization has also been used to ground transport infrastructure as an indicator for understanding the purpose of accessibility and connectivity in relation to the scheduling of tourists' mobility and activity. Consequently, this paper contends that transportation systems have consistently conferred an aura of prestige upon and influenced the tourism industry, facilitating the movement of millions of tourists and enhancing both domestic and international economies. Nevertheless, these advancements have not occurred devoid of a concomitant array of challenges. This paper emphasizes the imperative for sustainable management of transport systems driven by tourism, with significant repercussions for regulating CO2 emissions. In light of the current circumstances within this domain, stakeholders face the dilemma of reconciling economic aspirations as they navigate the implementation of environmentally sustainable transport alternatives.

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