



INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

Socio-Economic Impacts and Challenges of Tourism: A Review of Leh, Ladakh

Himanshu Nain

Research Scholar, Haryana School of Business,
Guru Jambheshwar University of Science and Technology, Hisar

Dr. Monika

Assistant Professor, Haryana School of Business,
Guru Jambheshwar University of Science and Technology, Hisar

ABSTRACT

Tourism has become an important factor influencing regional development especially when it comes to geographically and environmentally unique destinations like Leh, Ladakh. The fast development of tourism has created socio-economic benefits including job creation, improvements in infrastructure, support to local entrepreneurship and protection of cultural heritage. Nevertheless, the development of the tourism industry has led to the aggravation of different problems such as environmental pollution, resource depletion, waste management problems, seasonal overpopulation and problems with local infrastructure. The current paper presents a systematic review of literature concerning socio-economic impacts and challenges associated with sustainable tourism in Leh. Literature has been chosen based on keyword searches in the main academic database, with about 120 publications identified in total. Based on their relevance, 90 peer-reviewed publications have been selected to provide a literature review of socio-economic impacts of tourism in Leh. The literature review focuses on such topics as motivation of tourists, choice of destination, tourist services quality, tourist satisfaction, border tourism, and sustainable tourism. Thus, the findings reveal that tourism has had a considerable influence on regional development, providing more job opportunities to local people. However, the sustainability of this industry is connected with certain measures to be undertaken.

Keywords: Sustainable Tourism, Socio-Economic Impacts, Border Tourism, Tourist Satisfaction, Tourist Motivation, Leh-Ladakh.

INTRODUCTION

Tourism, one of the fastest-growing sectors, has emerged as a vital contributor to economic development, diverse employment opportunities, fostering regional growth, cultural exchange, heritage preservation, and infrastructure development (Rani & Sharma, 2018). It raises the income level, contributing to the enhancement of the local standard of living by providing employment opportunities directly or indirectly in various sectors, such as hospitality, accommodation, transportation, and local services (Harrison, 2021).

Leh-Ladakh, which became a Union Territory of India in 2019 (Government of India, 2019), is a strategically located and geographically unique region of the trans-Himalayan belt (The Editors of Encyclopaedia Britannica, 2025). Due to the prolonged winters with temperatures reaching below zero, low humidity, and limited rainfall, the area is a high-altitude cold desert. It boasts great beauty in nature, despite these harsh conditions, with snow-covered peaks, alpine lakes, Buddhist monasteries, and a rich cultural landscape (Dolma, 2020).

Now it is recognised as a prominent tourism destination in India. It emerged due to its adventure, spiritual tourism, rich cultural heritage, unique high-altitude environment, natural landscapes and nature-based tourism activities (Dolma, 2020). In recent scenarios, this region has witnessed a steady increase in the tourists' footfall due to better road connectivity, increased promotional activities and increased interest in border tourism (Gantait & Singh, 2025).

Tourists are those who go to locations beyond their normal surroundings with the intention of leisure, adventure, culture or recreation. Their travels usually include spending at least a night without their homes and experiencing the local attractions, customs, and the natural scenery of the place. Tourism is a major factor in connections between individuals and destinations, providing a way to have cross-cultural experiences and economic interaction (Blackshaw & Crawford, 2009). Over the years, the number of visitors to the area of Leh-Ladakh has significantly increased and the number of visitors who come there has reached a figure of more than 525,000 tourists in 2023, compared to the initial few hundred visitors who came to the area when the region was opened to tourists (District Administration Leh, 2025). Such tremendous expansion highlights the popularity of the region as a tourist spot that is characterised by picturesque landscapes, adventure, and cultural experiences. The local environment, with its unique high-altitude settings and a variety of tourism activities, attracts lots of tourists, contributing to the local economy and the creation of jobs (Indus Dispatch, 2025). The tourists' motivation to visit Leh-Ladakh can be explained through the push-pull strategy. Push factors represent the intrinsic psychological desires of the tourists, such as the escape strategy from daily life, self-exploration and adventure-seeking, and fun-loving desires. Pull factors represent the external attraction of a destination, including natural beauty, cultural heritage and destination image (Khalid et al., 2024).

Tourism is recognised as a key driver for the socio-economic development of a region (Dar et al., 2020). It contributes to employment generation, enhances income, promotes entrepreneurial activities among local communities, and raises living standards. Recent studies indicate a shift in tourism trends toward experiential, nature-based, and adventure tourism (Singh & Kumar Singh, 2021).

Border is gaining attention as a niche segment in tourism research nowadays. It refers to the tourism activities in international boundaries touching areas. These destinations attract tourists because of their strategic importance, cultural uniqueness and different geographical properties (Chang, 2018). In such regions, travel experience is a key determinant for measuring travel satisfaction experiences of tourists in travel destinations like Leh-Ladakh. Satisfaction is influenced by various factors such as infrastructural facilities, environmental and destination attributes, service quality, calibre of hospitality and cultural richness (Mustafa & Sharma, 2020).

Accommodation, environmental, and overall travel experience have a combined effect on tourist satisfaction in Leh-Ladakh. Homestays and local guesthouses have become significant accommodation facilities, which provide tourists with low-cost accommodation and local cultural engagement and contribute to the livelihoods of the locals. These homestays improve the satisfaction of the visitors through offering personalised hospitality and knowledge about the traditional life of the Ladakhi people (Jasrotia & Kour, 2022). Nevertheless, the high-altitude fragile environment of the region, the scarcity of water, and problems with waste management, as well as seasonal overcrowding of infrastructure, hamper its development and may impact the comfort of tourists, particularly during the peak seasons (Tandon, 2022). Tourist satisfaction in Leh-Ladakh is therefore more and more hinged on the trade-off between good hospitality services and environmental management (Pelliciardi, 2021).

The existing literature states that various studies have examined tourist motivation, environmental changes, sustainable tourism, ecotourism and socio-economic impacts of tourism, but there is a lack of

an integrated study to explore all these factors in collaboration, as well as a deep research is required on the trends and impacts of border tourism (Jaiswal, 2025; Padma & Nabi, 2025). To address these gaps, the present study focuses on analysing the motivational factors that influence tourists to visit Leh-Ladakh as a travel destination, evaluating the socio-economic impacts of tourism, identifying the key challenges faced by tourists while travelling in border regions, and measuring the level of satisfaction with tourism services in Leh-Ladakh.

LITERATURE REVIEW

Conceptual and Theoretical Overview of Tourism and Destination Choice

The concept of tourism and destination choice has been of major research interest in the field of tourism, and destination choice has been identified by researchers as a multi-staged decision-making process that can be acquired through a mix of psychological, social, technological, and contextual factors. The existing literature offers a detailed conceptual and theoretical clarification of the perceptions of tourists, their alternative evaluation and the ultimate destination choice process (Pourazad et al., 2025). The initial theoretical backgrounds were focusing on cognitive affective image theory, which describes destination choice as a result of cognitive assessment of destination features on the part of tourists and affective reactions on the part of tourists influenced by emotions and personal activities. Even more recent literature builds on this knowledge by adding the themes of behavioural and value-based theories the dynamic nature of tourist decision-making in the dynamic global tourism environment. The post-COVID-19 tourism studies point to considerable changes in travelling behaviour, as in the present circumstances, safety, risk perception, sustainability, and responsible travel practices are of more importance. These evolving preferences have altered the conceptual definition of destination attractiveness to be more concerned with the perceived safety, environmental stewardship, cultural authenticity and digital accessibility.

Newer literature is becoming more technologically inclined with the adoption of the Technology Acceptance Model to describe the role that digital platforms, online information, and social media have on destination awareness, evaluation, and choice. The current generation of tourists is extremely dependent on digital interaction, online reviews, and content produced by influencers in the process of destination selection, so technology has become an essential driver in destination choice behaviour. The Stimulus-Organism-Response (S-O-R) model is one model that has been widely used to conceptualise the interaction between external stimuli (destination marketing, digital content, and social influence) and internal psychological states to influence behavioural responses (destination choice and revisit intentions) (Liu & We, 2025). Also accompanying this, the push and pull theory has remained one of the prevailing frameworks in explaining destination choice as an intra/interplay of intrinsic motivations that include the need to escape, adventure, relax, or self-growth and extrinsic destination factors that include natural beauty, cultural experiences, facilities and quality of services.

Other recent theoretical contributions also point out the mediating role of tourism experiences in choosing a destination. According to the literature, tourism experiences play a very important role as a critical connection that can be established between motivation to travel and loyalty of the destination, as when there are positive experiences, satisfaction, strengthening of destination image, and future travel decisions. The evolution of destination choice through bibliometric reviews of the existing literature also demonstrates the interdisciplinary character of the concept that attracted the perspectives of psychology, sociology, marketing, and behavioural economics. The main themes identified in the literature of destination choice are conceptualisation of destinations, the hierarchical decision-making processes, modelling, influencing factors, and interdisciplinary perspectives. Research also highlights the sequentiality of the decision-making process in which tourists pass through awareness and consideration to final selection, which is usually affected by travel companions, situational constraints, and external uncertainties (K. Pandey & Joshi, 2021).

In the context of border tourism, e.g., remote and strategically sensitive areas, the selection of a destination is even more complicated by the additional limitations connected with accessibility, regulations, safety images and availability of infrastructure. Theory of Planned Behaviour is one of the theoretical models that is being increasingly modified in terms of explaining the effects of attitudes, subjective norms and perceived behavioural control on destination choice in such constrained situations. In general, the literature review highlights that destination choice is a complex and context-dependent phenomenon that is determined by motivational drivers, experience delivery, the power of the internet, and the change of the socio-environmental values. This theoretical and conceptual knowledge forms a very strong basis for analysing the destination choice behaviour in the border tourism areas such as Leh, Ladakh, where the ancient tourism theories merge with the modern travelling forces (Pourazad et al., 2025).

Tourism as a Tool for Regional Development

Tourism is widely recognised as one of the most dynamic and rapidly growing sectors of the global economy, playing a significant role in fostering economic growth, employment generation, and regional development. As a labour-intensive and service-oriented industry, tourism contributes directly and indirectly to income generation by creating employment opportunities across various skill levels, while also stimulating allied sectors such as transport, handicrafts, hospitality, food services, and infrastructure development (Ahmad Ugli, 2025). The literature consistently highlights tourism as a “chimney-less industry” that promotes inclusive and sustainable development, particularly in geographically remote, economically fragile, and rural regions. By encouraging investment in physical infrastructure such as roads, connectivity, accommodation facilities, and public services, tourism acts as a catalyst for balanced regional development and helps reduce spatial and economic disparities (Polukhina et al., 2024). In this context, tourism has emerged as an effective tool for regional development by diversifying local economies, enhancing livelihood opportunities, and improving the overall quality of life of host communities. Studies further emphasise that community-based tourism initiatives, including homestays and local entrepreneurship, strengthen socio-cultural sustainability by preserving local traditions, heritage, and identity, while simultaneously generating income at the grassroots level (Liutikas, 2024). However, the literature also cautions that unplanned and uncontrolled tourism growth can lead to adverse socio-cultural and environmental consequences, thereby underlining the need for sustainable and planned tourism development (Ilkhamovna, 2025). In regions such as Ladakh, tourism has gradually transformed the local economy from a traditional dependence on agriculture and government employment to a tourism-driven economic structure. Improved accessibility, increased domestic tourist flows, and the growing popularity of adventure and cultural tourism have significantly enhanced employment and income opportunities for the local population (Vrablikov et al., 2023). At the same time, emerging challenges related to infrastructure pressure, environmental degradation, and overtourism have been increasingly documented, reinforcing the argument that tourism must be strategically managed to ensure long-term regional development (Pavliuk et al., 2025). Overall, the reviewed literature establishes tourism as a powerful instrument for regional development, capable of generating economic growth, promoting social upliftment, and fostering sustainable development when aligned with effective planning, community participation, and responsible governance (Vujadinovic et al., 2023).

Evolution of Leh-Ladakh Tourism

Ladakh has experienced a major change in tourism since the region was opened to tourists in 1974, and has experienced a long period of political and strategic isolation. During its early years, tourism was small in size and was mostly controlled by foreigners, especially scholars, explorers, and culturally minded tourists attracted by the unique Buddhist culture, monasteries, festivals and the high-altitude region in Ladakh. At this time, participation in domestic tourism was very low with poor connectivity, climatic conditions and lack of awareness. Nevertheless, in recent decades, and more notably in the mid-2000s, the tourism environment of Ladakh has been experiencing a spectacular transformation

(Pelliciardi, 2021b). Better connectivity via roads like the Leh-Manali highway, more frequent flight plans, better accommodation infrastructure, and overall media coverage through movies, adventure activities and promotional campaigns have helped skyrocket the number and rate of tourists visiting the region. One of the most significant changes was noted in 2007-2008 when the demand for domestic tourists in the region started surpassing that of the international visitors, and initiated a tidal shift in the composition of tourism demand in the region (Kundu & Singh, 2025).

By 2019, most of the arrivals were domestic because Ladakh had become a mainstream tourist destination in India. This fast development has largely transformed the local economy since it was based on the traditional source of income and employment in agriculture and government jobs, but now it has shifted to the tourist-driven source of income and job creation. Although in its early stages, tourism development reinforced local hospitality practices and brought about widespread economic gains to people, its growth has assumed a more commercialised mass tourism (S. Singh, 2023). Based on the Tourism Area Life Cycle by Butler and the Irridex model by Doxey, Ladakh seems to be in the process of shifting towards the more intense period of development, where increasing tourist demand has already started to raise issues of cultural commodification, environmental destruction, stricter infrastructural demands and altering attitudes of the host community (Pelliciardi, 2021b). Recent research notes that the sudden rise in tourist numbers of more than half a million tourists in recent years has heightened the problems of overtourism, unplanned development and ecological susceptibility in this vulnerable cold-desert ecosystem. In turn, the literature greatly appeals to the necessity of planned, controlled and sustainable tourism development in Ladakh, and the growing interest in alternative and responsible forms of tourism, creating a balance between economic development and socio-cultural integrity and environmental sustainability (Dolma & Kumar, 2025).

Tourist Motivational Drivers

Tourist motivation has been the subject of several tourism studies that have shown that it is a key contributor to the influence of the decision to travel, the choice of destination, the experience, satisfaction of the tourists, and destination loyalty. The conceptualisation of tourist motivation based on the push and pull framework is a significant source of literature that is used to explain travel behaviour in terms of the interaction between the internal and external factors (Sharma, 2025). Push factors are intrinsic socio-psychological factors that stimulate people to travel to seek escape from their daily jobs, relaxation, adventure, novelty, personal growth, social engagement, prestige, and self-realisation. These motivation factors indicate the hidden needs and expectations of the tourists and are decisive in the start of travel (Joseph & Gillariose, 2025). Pull factors, on the other hand, are destination-specific elements that encourage tourists to visit specific destinations, which include natural beauty, cultural and religious tourism, recreation, quality of services, infrastructure, prices and accessibility and the general destination image. Available literature highlights that the push and pull factors contribute to the determination of travel, but the former factors tend to be the main initiator of travel, and the latter determine the final destination and the activities at the destination (N. Singh et al., 2025).

The empirical study of the adventure and religious tourism situations also indicates the importance of motivational forces, including risk-taking, achievement, knowledge seeking, spiritual fulfilment and seeking relaxation of the mind and emotional well-being. The results of research carried out on domestic and international tourists indicate that inner peace, happiness, curiosity and cultural exploration motivations play a significant role in destination selection, especially destinations that present a unique experience in terms of experiential value (V. S. Pandey, 2025). In addition, literature connecting the tourist motivation, satisfaction and destination loyalty has proved a strong connection whereby tourists whose expectations regarding motivations are met are more likely to record more satisfaction levels, revisit the destination and engage in positive word of mouth communication, which leads to long-term tourism sustainability and business growth (Joseph & Gillariose, 2025).

Within the framework of Leh, those factors which are referred to as the key attractions include the high altitude scenery, dramatic mountainous scenery, clean lakes, Buddhist monasteries and adventure tourism

opportunities, which are the main attraction factors in Leh that draw in both domestic and foreign tourists. Trekking, mountaineering and motorbiking are among the adventure activities and cultural and spiritual experiences, which contribute greatly to the tourism attraction in the region (Pelliciardi, 2021). The other recent research also reflects the increasing role of film-induced tourism in augmenting national tourist arrivals by amplifying destination visibility as well as destination image. Nevertheless, the tourism demand in Leh-Ladakh is very sensitive to externalities, including geopolitical conditions, economic changes, climate change, natural disasters, and international crises, including pandemics, which tend to cause a change in tourist arrivals (Thiksay, 2020). Altogether, the literature review emphasises the significance of the knowledge of tourist motivational drivers as an important instrument for the analysis of tourist demand and its enhancement of the travel experiences, satisfaction levels, and development of effective tourism planning and marketing strategies, especially in high-altitude and remote tourism destinations such as Leh-Ladakh.

Socio- Economic Impacts of Tourism on Local Communities

Tourism has become one of the major agents of socio-economic growth in Ladakh, especially in Leh, changing the region, which was an agricultural and secluded economy, into a growth centre that is driven by tourism. Since Ladakh was opened to tourists in 1974, tourism has gradually grown, with a sharp increase in domestic tourism traffic in the last 20 years. Throughout the literature, it is always highlighted that tourism has created significant job and revenue generation opportunities for the locals, particularly in the hospitality, transport, guiding, and service sectors. To most of the households, tourism is a source of income that is way better than traditional farming income, thus enhancing the material standards of living as well as decreasing the economic exposure (Harrison, 2021). Tourism has also increased the growth of the local businesses to include hotels, guesthouses, homestays, travel agencies, handicrafts departments, self-help groups, and other enterprises that have increased the diversification of the economy. Moreover, the increased demand created by tourism has promoted the infrastructural development, in the form of better roads, expansion of airports, accommodation and public services, which have promoted connectivity and accessibility in the region (Kapoor & Wangdus, 2020).

The literature, however, reveals that the economic benefits of tourism do not distribute equally throughout the region. Although Leh town and a few tourist-oriented places have witnessed enormous economic benefits, most of the peripheral villages are still marginalised and have little access to tourism revenue (Singh & Kumar Singh, 2021). One study identifies that a major portion of tourism revenue is concentrated in the hands of established hotel owners and seasonal traders, which contributes to income inequality and spatial imbalance. Tourism being seasonal also increases the level of economic uncertainty because jobs become unavailable and agricultural activities are not given serious consideration during peak seasons, resulting in labour shortages in agriculture, thus gradually draining traditional livelihoods (Hussain, 2024). Socially, tourism has led to exchange in culture and exposure to the rest of the world, thus making the locals more aware, have educational goals and have better hygiene and sanitation habits. Tourism has also helped in marketing and maintaining the culture, crafts, festivals and structures of Ladakh by giving them monetary value. Programmes like community-based tourism and homestay programmes have increased the involvement of the locals and promoted conservation-oriented attitudes (Radhu, 2023a). However, the literature also records some negative social effects, such as cultural commodification, loss of traditional ways, and social values and lifestyles. The growing role of consumerism, changing dreams among young people and the use of tourist behavioural tendencies have become issues of concern with regard to the issue of the loss of culture and social unity. The movement of the younger generations out of rural areas to tourism attractions has also contributed towards the demise of the traditional community structures and traditions in farming (Dar et al., 2022).

Tourism development has also been an issue of concern due to environmental and social pressure. The commercialisation of agricultural land, the additional stress on water resources, issues with the management of waste, and pollution have become burning problems, especially in Leh. According to the scholars, the ecological balance of this area can be jeopardised by the uncontrolled development of

tourism (Dolma, 2020). Generally, the literature highlights the fact that even though tourism has been transformative in improving employment opportunities, income generation, development, and standard of living in Leh, the sustainability of the tourism activity in the long run is based on balanced, inclusive, and community-based planning. Researchers have continually supported sustainable tourism policies that allocate the benefits in a more balanced manner, safeguard cultural and environmental resources, and limit the undue reliance on tourism as the only driver of development in the area (Dar et al., 2020).

Border Tourism and Its Challenges

Border tourism has been gaining growing prominence in tourism literature as a unique and new type of tourism, especially in geographically isolated and strategically sensitive areas. Theorists studying border tourism in Ladakh highlight that the outstanding geographical features of the area, including the Himalayan mountains, high-altitude topography, and cultural heritage-related monasteries, have placed it on a central stage as an adventure, cultural, and experiential tourist destination. Tourism development in border regions has also been given a new policy focus since the designation of Ladakh as a Union Territory in 2019, and since then, the areas have experienced an increase in tourist inflow and diversification of tourism services and activities (Vogel & Field, 2020). The latest literature has provided new trends like geotourism, which is concerned with the sightseeing of geological features and scenery, and the increasing popularity of adventure tours, including trekking, river rafting, mountain biking, and motorbiking. Government-led efforts to enhance physical infrastructure, road connectivity, and accommodation facilities have supported these trends, which are said to be vital towards supporting tourism development in border regions (Radhu, 2023).

The literature also records the big change in the tourism of Ladakh, whereby the destination was once a niche with its major customers being international tourists, but now it is a booming domestic tourism destination. Along with some concerns regarding cultural commodification and commercialisation, this shift has introduced significant socio-cultural shifts in local communities in terms of cultural visibility, economic opportunities and involvement with the community (Himanshu, 2025). Researchers, hence, stress on using sustainable and community-based tourism practices in order to ensure that tourism development is inclusive and culturally sensitive. Further, recent literature highlights the increasing importance of digital marketing approaches in defining the trends in border tourism, especially via social media, influencer marketing, and promotional campaigns based on personalisation, which create better destination awareness and drive travel. Regulatory transparency and safety communication have also become crucial issues in guaranteeing the safety of tourists and determining their travel experience in border regions (Singh & Singh, 2021).

Under a wider scope of analytical context, border tourism literature frames tourism development in the realms of national identity, geopolitics and border governance. Regulatory policies like Inner Line Permits and Protected Area Permits are also pointed out as tools that do not just control tourist movement but also influence the perceptions of remoteness, security and territorial importance by the tourists. These regulatory systems help to make border tourism a complicated exchange of economic opportunity, political control, and socio-cultural identity (Jaiswal, 2025). On the whole, the available research indicates that border tourism in Ladakh has significant potential for the economic development of the region and diversification of the destination, but at the same time requires a balanced operation, strategic planning, and sustainable management to ensure the preservation of the vulnerable ecosystem, cultural heritage, and strategic value of the region (Vogel & Field, 2020). The literature on border tourism has consistently emphasised that there are various interrelated problems that tourists who visit border areas encounter that greatly affect their travel experience, satisfaction, and destination selection. The weakness of physical infrastructure in terms of low road connectivity, lack of access to public transport, insufficient accommodation facilities, and unavailability of basic facilities like food outlets, medical facilities, and sanitation facilities has been cited as one of the most talked-about issues. Such infrastructural limitations limit accessibility and lower the travel comfort, especially in remote and distant border points (Gill et al.,

2025). The distances between the border areas also contribute to these challenges because the basic services tend to be distributed sparsely, and therefore, tourists face difficulties in planning their travels and mobility. Another significant obstacle in the literature on border tourism is the safety and security issues. Since border areas are strategic and politically sensitive, tourists tend to feel more insecure as pertains to political instability, military presence, crime, and limited movement, thus deterring people from visiting and developing fears among travellers. These issues are further complicated by the limitation of travelling during the night, blockage of roads in the evening, and the inadequacy of emergency service centres and all these factors are averse to the overall tourist experience (Makkonen & Williams, 2024).

Besides the infrastructural and security concerns, regulatory and institutional challenges are increasingly recognised as major problems encountered by tourists in border areas. The cumbersome and time-consuming process of getting a visa, permit, long customs checkups and strict border laws and regulations often render travelling hectic and tiresome, which depletes the beauty of places at the border. The international tourists and first-time visitors in particular are most discouraged by such complications in the procedures, as they might not have sufficient information or support. Other communication-based issues due to language barriers, culture, and lack of signage are also identified in the literature (Foroughi, 2025). Inadequate signage and multilingual information often result in confusion and disorientation, thereby restricting the capacity of tourists to explore locations, comprehend local policies, or avail services effectively. The problem is also exacerbated by the fact that the number of trained tourism staff and domestic guides in border areas is limited. The other significant theme in the literature is the inadequacy of effective marketing and publicity of the border tourism destinations. In most of the studies, it is observed that border regions are not promoted because there are minimal marketing campaigns, inadequate internet availability, and the absence of trusted tourism information. Consequently, there is low awareness regarding the border destinations among the potential tourists, especially urban and international tourists and hence underdeveloped tourism markets and low inflow of tourists (Roy & Sarkar, 2025). Also, the lack of institutional coordination and fragmentation of tourism planning is cited as a major challenge. The lack of cross-border tourism strategies, competition among neighbouring regions, and lack of coordination between various stakeholders tend to give the impression of a disjointed tourism experience. The unavailability of proper data and tracking of the flows of tourists also makes it difficult to plan and assess the programs of tourism development. All in all, the literature reviewed indicates that despite the significant prospects of border tourism for the development of the regions, the experiences of tourists are limited due to infrastructural inefficiency, security dilemmas, regulation, communication challenges, and weak governance systems, which explains why the coordinated, sustainable, and tourist-oriented planning of the border areas is necessary (Barman, 2024).

Service Quality and Tourist Satisfaction

Service quality and tourist satisfaction are highly studied topics in tourism literature, and researchers have consistently identified service quality as the key factor in defining the overall tourist experience, satisfaction levels, and intentions towards travelling. The concept of service quality in tourism is generally understood as a multidimensional concept, encompassing both tangible and intangible aspects such as accommodation standards, transport facilities, accessibility, personnel behaviour, responsiveness, assurance, empathy, and the availability of supporting infrastructure (Ali & Fazili, 2025). Using the SERVQUAL framework, many studies have also shown that these dimensions significantly shape tourists' perceptions, satisfaction, and loyalty towards the destination. Service quality increases perceived value and is likely to result in positive travel experiences, whereas service inadequacies tend to generate dissatisfaction and a negative destination image. Service quality is crucial to tourist satisfaction and destination competitiveness in places that receive regular border tourist visits, where tourists are often exposed to geographical isolation, limited accessibility, and regulatory restrictions (Bhattacharya et al., 2023).

The current body of knowledge in the area of border tourism emphasises that the quality of service is a mitigating factor in minimising the adverse impacts of the challenges of travelling to a border. According to research, ensuring that transport services are efficient, accommodation is reliable, basic amenities are available, and tourism staff are supportive can greatly contribute to the comfort and safety of tourists in strategically sensitive locations. Research also suggests that a lack of service quality in border destinations tends to worsen tourists' concerns about remoteness, security, and uncertainty, and therefore adversely affects satisfaction and travel intentions. Here, the quality of services such as road infrastructure, information availability, emergency facilities, and local hospitality are repeatedly identified as major factors contributing to tourist satisfaction in the border tourism environment (Ali & Fazili, 2025).

The literature on the topic of Leh–Ladakh has highlighted that tourists overall are generally satisfied with the natural beauty, cultural authenticity, and the unique high-altitude experiences that the region has to offer, but the satisfaction rates regarding service quality are not uniformly high. Empirical research shows that tourists are satisfied with accommodation facilities, local hospitality and adventure tourism services, but generally complain about road conditions, medical facilities, communications services and social amenities (Mustafa & Sharma, 2021). These service gaps are more pronounced during peak tourist seasons, where the inflow of tourists becomes a strain on the available infrastructure and service systems. Additionally, it has been pointed out in the literature that domestic and international tourists differ in their perceptions, where the latter tend to hold higher standards of service and are more sensitive to variations in service quality. These results highlight the significance of service quality management by segment in the tourism industry in Leh-Ladakh (Yuniawati Ekaningrum et al., 2021).

Recent research also highlights the growing importance of technological and digital service quality in enhancing tourist satisfaction. Online booking systems, online navigation systems, social media communication, and real-time information sharing are increasingly shaping the expectations and perceptions of the quality of services by tourists, particularly those in remote border areas. The literature also confirms that the quality of service is long-term in the sense that it has implications beyond immediate tourist satisfaction (Saneha et al., 2024). Quality services help in destination loyalty, repeat visits, positive word-of-mouth marketing, and the sustainability of tourism as a whole. In fragile and strategically sensitive locations such as the border destinations such as Leh Ladakh, service quality is hence not merely a factor of tourist satisfaction, but an essential element of sustainable tourism development. Generally, the literature review indicates that infrastructural development, capacity building, and culturally sensitive service delivery are critical in improving the quality of services offered to tourists to promote higher levels of tourist satisfaction. (Sarangi & Ghosh, 2025).

RESEARCH GAP

Even though Leh has become one of the most significant and rapidly developing tourism destinations in India since becoming a Union Territory, a severe deficit of rigorous academic studies devoted to investigating the region's tourism development in relation to community and sustainability is noted. The available studies are mostly about tourism growth, tourist arrivals, the development of infrastructure, or the destination's image, yet very few empirical studies have focused on the actual impact of tourism on the socio-economic lives of locals in Leh. Besides, the body of research that quantitatively examines the general satisfaction of tourists with the tourism experience in Leh is quite minimal, yet the area itself is becoming increasingly popular among both domestic and international tourists.

Moreover, although the concept of sustainable tourism is often discussed in policy documents and development plans in Leh, there is a desirable lack of field research that would evaluate the knowledge and perception of the residents regarding sustainable tourism development. The available literature fails to sufficiently address the issue of whether the local community is aware of the concept of sustainable tourism, and whether they appreciate it or are ready to join in its execution. Thus, a notable gap in research exists in terms of a combined study that would simultaneously analyse the socio-economic effects of tourism on the local community, the levels of satisfaction by the tourists, and the knowledge and

perception of the residents of the area of sustainable tourism development in Leh. The current research will address these significant gaps.

METHODOLOGY

A systematic literature review approach is used in the current study to investigate the socio-economic impacts and challenges related to sustainable tourism in Leh. A thorough search of the literature is undertaken using relevant keywords such as sustainable tourism, socio-economic impact of tourism, challenges of tourism, border tourism, tourist motivation, tourist satisfaction, destination selection, and tourism in Leh Ladakh. The search of the literature is done using various academic databases including Scopus, Web of Science, ScienceDirect, SpringerLink, Emerald Insight, Taylor & Francis, and Google Scholar. The first round of search yielded approximately 150 research papers. These papers were then filtered according to their relevance to the research, publication standard, and duplication. After applying the inclusion criteria, only 120 relevant papers were selected. These papers were critically reviewed to determine the themes, theories, research gap, and current trend regarding sustainable tourism in Leh. The results of these studies serve as the basis for this review paper and guide the future research direction.

CONCLUSION

The increasing role of tourism in socio-economic development in Leh has been observed due to the creation of employment, improvement in income generation, development of entrepreneurship, and betterment of infrastructure facilities. However, the fast-paced growth in the number of tourists visiting Leh has increased problems including environmental pollution, infrastructure strain, waste management, and overcrowding. It is thus imperative that the reasons that motivate tourists, their experiences, their concerns, and the level of satisfaction are known in order to frame appropriate tourism policies in Leh. The results obtained from the research are anticipated to help policymakers and tourism managers in developing sustainable policies regarding tourism in Leh, which would help in its socio-economic development along with conserving its unique ecological and cultural environment.

REFERENCES

1. Ahmad Ugli, Y. M. (2025). Assessment of Strategic Development Opportunities of Regions for the Development of the Tourism Industry. *Journal Pariwisata Dan Perhotelan*, 2(2),8. <https://doi.org/10.47134/pjpp.v2i2.4041>
2. Ali, S., & Fazili, A. I. (2025). Significance of Service Quality in Tourism Industry: A Comprehensive Review. *International Journal of Multidisciplinary*, 10(2), 240–244. <https://doi.org/10.31305/rrijm.2025.v10.n2.027>
3. Barman, A. (2024). Problems And Prospects Of Cross-Border Tourism Between North East India And Myanmar. *International Journal of Creative Research Thoughts*, 12(5). www.ijcrt.org
4. Bhattacharya, P., Mukhopadhyay, A., Saha, J., Samanta, B., Mondal, M., Bhattacharya, S., & Paul, S. (2023). Perception-satisfaction based quality assessment of tourism and hospitality services in the Himalayan region: An application of AHP-ServQual approach on Sandakphu Trail, West Bengal, India. *International Journal of Geoheritage and Parks*, 11(2), 259–275. <https://doi.org/10.1016/j.ijgeop.2023.04.001>
5. Blackshaw, T., & Crawford, G. (2009). Tourism. In the sage dictionary of leisure studies (pp. 210-211). SAGE Publications Ltd, <https://doi.org/10.4135/9781446213278.n216> Chang, K. C. (2018). The affecting tourism development attitudes based on the social exchange theory and the social network theory. *Asia Pacific Journal of Tourism Research*, 26(2), 167–182. <https://doi.org/10.1080/10941665.2018.1540438>
6. Dar, S. N., Shah, S. A., & Wani, M. A. (2022). Geospatial tourist information system for promoting tourism in trans-himalayas: A study of leh ladakh India. *GeoJournal*, 87(4), 3249–3263. <https://doi.org/10.1007/s10708-021-10431-4>

7. Dar, S. N., Shah, S. A., Khatun, A., & Batool, N. (2020). Role of Tourism in Poverty Alleviation and Socio-Economic Development: A Study of Leh (Ladakh). *History Research Journal*, 1544–1546. <https://www.researchgate.net/publication/339939185>
8. District Administration Leh. (2025). *Swadesh Darshan-Leh: Tourist information and visitor statistics*. <https://leh.nic.in/swadesh-darshan-leh/>
9. Dolma, S., & Kumar, A. (2025). Ecological Resilience and Economic Shifts: Tourism and Solid Waste in Ladakh's Mountainous Landscape. *Asian Research Journal of Arts & Social Sciences*, 23(3), 92–103. <https://doi.org/10.9734/arjass/2025/v23i3653>
10. Dolma, Y. (2020). Tourism in Ladakh: Trends and composition. *International Journal of Research in Social Sciences*, 10(12), 127–130. https://www.ijmra.us/project%20doc/2020/IJRSS_DECEMBER2020/IJRSS12Dec20-21086.pdf
11. Foroughi, S. (2025). Investigating the role of tourism in the development of border regions (strategies, capacities, opportunities, challenges and problems of tourism). *Anadolu Üniversitesi Mesleki Eğitim ve Uygulama Dergisi*, 4(2), 172–205. <https://doi.org/10.70756/anameud.1649804>
12. Gantait, Arnab & Singh, Kuldeep. (2025). Special Interest Tourism: Exploring Dimensions, Impacts, and Future Trends. *SSRN Electronic Journal*. 10.2139/ssrn.5034986.
13. Gill, S. K., Pawar, S., Kanwar, R., & Kashyap, S. (2025). An Analytical Study on the Tourists' Perspectives of Socio-Economic Impacts and Challenges of Border Tourism in Punjab. *Communications on Applied Nonlinear Analysis*, 32, 355–370. <https://doi.org/10.52783/cana.v32.5067>
14. Government of India. (2019). *The Jammu and Kashmir Reorganisation Act, 2019* (Act No.34 of 2019). Ministry of Law and Justice. <https://legislative.gov.in/actsofparliamentfromtheyear/jammu-and-kashmirreorganisation-act-2019>
15. Harrison, B. (2021). The impact of a tourism boom in an environmentally sensitive region: A case study of Ladakh (Kashmir, India). *Japanese Journal of Policy and Culture*, 29, 21–41. https://chuo-u.repo.nii.ac.jp/record/12819/files/02_eng_Brian_HARRISON.pdf
16. Himanshu. (2025). Ladakh witnessing new era of development. *International Journal of Political Science and Governance*, 7(10), 115–119. <https://www.doi.org/10.33545/26646021.2025.v7.i10b.712>
17. Hussain, M. (2024). Tourism Industry and Economic Development: A Case Study of Ladakh. *International Journal for Multidisciplinary Research and Studies*, 4(5), 1164–1166.
18. Ilkhamovna, S. Z. (2025). Tourism infrastructure and its role in regional development in Uzbekistan. *International journal of artificial intelligence*, 05(06), 17–22.
19. Indus Dispatch. (2025). *Tourist arrivals in Ladakh jump from 2.79 lakh to over 5.3 lakh since UT status*. <https://indusdispatch.in/tourist-arrivals-in-ladakh-jump-from-2-79-lakh-to-over-5-3-lakh-since-ut-status/>
20. Jaiswal, I. (2025). The changing landscape of tourism development in Ladakh: A social exchange theory approach. *International Journal of Economic Practices and Theories*, 15(1), 192–193. <https://ijapt.org>
21. Jasrotia, A., & Kour, P. (2022). Eco-friendly hospitality in Himalayas: An investigation on homestay services in India. *Asean Journal on Hospitality and Tourism*, 20(2). <https://doi.org/10.5614/ajht.2022.20.2.02>
22. Joseph, J., & Gillariose, J. (2025). Revisiting the Push–Pull Tourist Motivation Model: A Theoretical and Empirical Justification for a Reflective–Formative Structure. *Tourism and Hospitality*, 6(3), 139. <https://doi.org/10.3390/tourhosp6030139>
23. Kapoor, D. S., & Wangdus, J. (2020). A paradigm shifts of tourism industry toward sustainability: a study with special reference to Ladakh. *Indian Institute of Management Kohzikhode*. <https://www.iimk.ac.in/research/markconf20/>
24. Khalid, R., Kumar, R., Sinha, R., Selem, K. M. M., & Raza, M. (2024). A consensus map for

- Ladakh's development as a potential geotourism destination: Key drivers. *Journal of Place Management and Development*, 17(4), 389–414. <https://doi.org/10.1108/JPM-D-2023-0062>
25. Kundu, U., & Singh, A. (2025). A study on balancing conservation and growth of sustainable developmental practices in Ladakh. *International Journal of Humanities and Education Research*, 7(2), 09–12. <https://doi.org/10.33545/26649799.2025.v7.i2a.217>
 26. Liu, Y., & We, H. (2025). A Conceptual Model of Factors Influencing Destination Choice among Chinese Tourists Visiting New Zealand. *International Journal of Academic Research in Business and Social Sciences*, 15(4), 879–901. <https://doi.org/10.6007/IJARBS/v15-i4/25198>
 27. Liutikas, D. (2024). Gastronomy tourism as a tool for the development of regions. *Tourism and Heritage Journal*, 5, 100–119. <https://doi.org/10.1344/THJ.2023.5.6>
 28. Makkonen, T., & Williams, A. M. (2024). Cross-border tourism and innovation system failures. *Annals of Tourism Research*, 105, 103735. <https://doi.org/10.1016/j.annals.2024.103735>
 29. Mustafa, G., & Sharma, A. (2020). Tourist satisfaction in the Trans-Himalayan region: Exploring the difference between domestic and foreign tourists. *Journal of Tourism*, 30(30). <https://revistadetourism.ro/index.php/rdt/article/view/186>
 31. Padma, S., & Nabi, T. (2025). Challenges of Sustainable Tourism in the Himalayan Region of Ladakh. *Business Strategy & Development*, 8(2), e70119. <https://doi.org/10.1002/bsd2.70119>
 32. Pandey, K., & Joshi, S. (2021). Trends in Destination Choice in Tourism Research: A 25-year Bibliometric Review. *FIIB Business Review*, 10(4), 371–392. <https://doi.org/10.1177/23197145211032430>
 33. Pandey, V. S. (2025). Travel Motivation: Factor for Segmenting Indian Tourism Industry. *International Journal of Latest Technology in Engineering, Management & Applied Science*, 14(6). <https://doi.org/10.51583/IJLTEMAS.2025.140600077>
 34. Pavliuk, S., Mirzayev, N., & Ungalov, S. (2025). The tourism industry as a tool for local economic development of the territorial communities of the Carpathian region of Ukraine. *Bio Web of Conferences*, 151, 03010. <https://doi.org/10.1051/bioconf/202515103010>
 35. Pelliciardi, V. (2021). Factors Affecting International and National Tourist Arrivals (1974–2020) in Leh District (U.T. Ladakh, India). *European Journal of Sustainable Development*, 10(1), 736. <https://doi.org/10.14207/ejsd.2021.v10n1p736>
 36. Polukhina, A., Sheresheva, M., Napolskikh, D., & Lezhnin, V. (2024). Regional Tourism Ecosystem as a Tool for Sustainable Development during the Economic Crisis. *Sustainability*, 16(2), 884. <https://doi.org/10.3390/su16020884>
 37. Pourazad, N., Stocchi, L., & Simmonds, L. (2025). Influencers and the choice of a travel destination: A customer journey and information processing perspective. *Information Technology & Tourism*, 27(4), 1185–1228. <https://doi.org/10.1007/s40558-025-00330->
 38. Radhu, S. (2023). A Study on The Socio-Economic Impacts of Eco Tourism in Ladakh, India. *International Journal for Multidisciplinary Research*, 5(5). www.ijfmr.com
 39. Rani, D. V., & Sharma, P. (2018). Tourism: A gateway for generating employment opportunities (A study of state Jammu & Kashmir, India). *International Journal of Research and Analytical Reviews*, 5(4). <http://ijrar.com/>
 40. Roy, K., & Sarkar, B. C. (2025). Potential for Sustainable Border Tourism in the Indo-Bangladesh Border region in Jalpaiguri district of West Bengal. *International Journal of Multidisciplinary*, 10(7), 345–357. <https://doi.org/10.31305/rrijm.2025.v10.n7.040>
 41. Sanaha, J., Shahrin, S., & Salimon, M. G. (2024). The relationship between service quality and tourist satisfaction and its moderating effect on gastronomy tourism in southern Thailand: a pls-sem-based analysis. *International Journal of Sustainable Development and Planning*, 19(09), 3299–3309. <https://doi.org/10.18280/ijstdp.190903>
 42. Sarangi, A., & Ghosh, P. (2025). The Impact of Tourist Satisfaction on Loyalty in Ecotourism

- Destination: A Mediation Approach. *Journal of Tourism Studies*, 20(1). <https://doi.org/10.12727/ajts.33.12>
43. Sharma, A. S. (2025). Motivational drivers in adventure tourism and their influence on destination loyalty. *Journal of Sustainable Tourism, Hospitality, and Management*, 13(2). <https://doi.org/10.5281/ZENODO.15964220>
 44. Singh, N., Dhamija, S., & Dhamija, A. (2025). A Study of Push and Pull Motivational Factors of Religious Tourism in India. *International Journal of Religious Tourism and Pilgrimage* 13(1). <https://doi.org/10.21427/8NXXA-GH67>
 45. Singh, P., & Singh, A. K. (2021). Tourism development and its impact on the peripheral society: A case study of Ladakh. *Journal of Tourism Studies*, 6(1), 49–64. <https://doi.org/10.12727/ajts.6.4>
 46. Singh, S. (2023). To what extent do eco-tourism and cultural tourism contribute to Ladakh's economy and make it more sustainable? *International Journal of Social Science and Economic Research*, 08(04), 867–887. <https://doi.org/10.46609/IJSSER.2023.v08i04.021>
 47. Tandon, A. (2022, October 13). As tourism grows in Leh, so does the concern about its environmental impact. Mongabay. <https://india.mongabay.com/2022/09/as-tourism-grows-in-leh-so-does-the-concern-about-its-environmental-impact/>
 48. The Editors of Encyclopaedia Britannica. (2025). Ladakh (union territory, India). *Encyclopædia Britannica*. <https://www.britannica.com/place/Ladakh-union-territory>. Thiksay, T. N. (2020). To analyze the tourism industry of India with special reference to Leh district of Ladakh Union Territory. *International Journal of Development Research*, 10(3), 34472–34477. <http://www.journalijdr.com>
 49. Vogel, B., & Field, J. (2020). (Re)constructing borders through the governance of tourism and trade in Ladakh, India. *Political Geography*, 82, 102226. <https://doi.org/10.1016/j.polgeo.2020.102226>
 50. Vrablikov, M., Hrnčiarova Turciakova, A., & Baranova, M. (2023). Tourism as a Factor of Local and Regional Development. *Marketing and Management of Innovations*, 14(1), 199–212. <https://doi.org/10.21272/mmi.2023.1-17>
 51. Vujadinovic, S., Sabic, D., Gajic, M., Golic, R., Kazmina, L., Joksimovic, M., Krstic, F., Malinic, V., & Sedlak, M. (2023). Tourism in the context of contemporary theories of regional development. *Journal of the Geographical Institute Jovan Cvijic, SASA*, 73(3), 355–370. <https://doi.org/10.2298/IJGI2303355V>
 52. Yuniawati Ekaningrum, Fredianaika Istanti, & Evada El Ummah Khoiro. (2021). The Influence of Service Quality on Customer Satisfaction in Surabaya Tourist Destinations during the Covid-19 Pandemic. *International Journal of Humanities Education and Social Sciences (IJHESS)*, 1(3). <https://doi.org/10.55227/ijhess.v1i3.65>