

Progress of the Integration of Mountain Culture, Sports, and Tourism Industry: A Literature Review

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Abstract

Background: Mountain regions face socio-economic challenges. Integrating culture, tourism and sports offers a promising path for resilient economies. **Aim:** To investigate the current progress and prospects of integrating mountain culture, sports, and the tourism industry. **Objectives:** To determine effective strategies and models for achieving sustainable and synergistic development. **Methods:** This review examines case studies from mountainous regions of Europe and quantitative data from southwestern China. **Findings:** Leadership, community participation, and collaboration as success factors, while infrastructure deficits and administrative fragmentation remain challenges. Sports integration is notably underdeveloped. **Conclusion:** Holistic, community-centered approaches are crucial for sustainable development.

Keywords: Industrial integration; Tourism industry; Sports industry; Culture industry

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1.0 Introduction

Mountain regions, covering a significant portion of the Earth's landmass, are repositories of unique biodiversity, cultural heritage, and breathtaking landscapes. However, they are also characterized by inherent vulnerabilities and persistent socio-economic challenges. Geographic isolation, limited infrastructure, and a historical reliance on primary sectors like agriculture and forestry have rendered many mountain communities susceptible to economic stagnation and demographic decline, particularly through the outmigration of youth (Shang & Xie, 2025). In this context, tourism has long been identified as a potential "lifeline" (Prat Forga & Cánoves Valiente, 2014), offering an alternative source of income and employment.

The traditional model of tourism in these areas, however, is evolving. The contemporary tourist seeks more than passive sightseeing; there is a growing demand for immersive, authentic, and experiential activities (Lun et al., 2016). This shift has catalyzed a paradigm from siloed sectoral development towards integrated approaches. The merger of culture and tourism has been a primary focus, recognizing that culture provides the "soul" of a destination, while tourism offers a viable "market" for cultural products (Yuqiao, 2025). More recently, the role of sports—particularly nature-based and adventure sports—has been recognized as a powerful catalyst that can extend tourist stays, attract specific market segments, and promote year-round activity.

This paper posits that the most resilient and sustainable development pathway for mountain regions lies in the strategic integration of all three sectors: culture, sports, and tourism. This tripartite integration can create a synergistic ecosystem where the whole is greater than the sum of its parts. For instance, a heritage trail (culture) can be designed for hiking (sport), which in turn drives tourism revenue

that supports local communities and funds conservation efforts. Despite its potential, this integrated model is not yet fully realized or thoroughly understood in academic literature. Much of the existing research examines dyadic relationships (e.g., culture-tourism), with the explicit tripartite integration of culture, sports, and tourism remaining an emergent field of study (Li & Xu, 2020).

Therefore, this literature review aims to synthesize current knowledge on the progress and prospects of integrating mountain culture, sports, and the tourism industry. It seeks to map the conceptual landscape, identify the mechanisms and drivers of integration, evaluate success factors and persistent challenges, and propose a future research agenda to advance this critical field of study for the sustainable future of mountain communities.

2.0 Literature Review

2.1 *The Evolving Role of Tourism in Mountain Development*

The narrative of tourism in mountain areas has shifted from being a mere supplementary economic activity to a central pillar of regional development strategies. As noted by Prat Forga and Cánoves Valiente (2014), tourism is often viewed as a vital alternative where agriculture is in decline. This is encapsulated in the concept of "integrated tourism," defined as "tourism which is explicitly linked to the economic, cultural, social, natural and human structures of the mountain regions in which it takes place, and which seeks to make optimal use of those structures". This approach moves beyond simply importing tourist programs and instead roots development firmly in local resources, advocating for local ownership and control to reduce economic "leakages" and ensure that benefits are retained within the community.

The sustainability of this tourism development is paramount. The Bruntland Commission's definition of sustainability—meeting the needs of the present without compromising the ability of future generations to meet their own needs—is directly applicable (as cited in Prat Forga & Cánoves Valiente, 2014). In mountain contexts, this translates to a delicate balance: leveraging natural and cultural resources for economic gain while ensuring their protection and preservation for the long term. Damage to these resources ultimately undermines the very foundation of the tourism industry itself.

2.2 *Culture as the Soul of Mountain Tourism*

Cultural tourism has emerged as one of the most developed products in rural and mountain areas. It leverages a territory's wide cultural heritage, which can include historical sites, traditional lifestyles, folklore, gastronomy, and intangible cultural practices (García, 2003, as cited in Prat Forga & Cánoves Valiente, 2014). The concept of "authenticity" is central to its appeal. Travelers are increasingly seeking "real situations" and opportunities to participate in the authentic realities of a community (Lun et al., 2016).

Integrated cultural tourism is based on the premise that cultural offerings must be closely aligned with the inherent attributes of mountain locations. These attributes include high-quality natural environments, traditional ways of life, and the survival of older cultural and behavioural norms (Lane & Bramwell, 1994, as cited in Prat Forga & Cánoves Valiente, 2014). The "embeddedness" of tourism activities—meaning they are closely based on local physical, economic, social, or cultural resources—confers distinctiveness and a unique competitive advantage (Prat Forga & Cánoves Valiente, 2014). When cultural resources are owned and managed locally (endogeneity), it empowers communities and strengthens economic sustainability.

2.3 *Sports and Adventure Tourism as a Dynamic Catalyst*

While the literature on sports tourism in mountains is often implicit in discussions of outdoor recreation, its role as a distinct and powerful driver is increasingly acknowledged. Mountain sports, including hiking, climbing, mountain biking, skiing, and trail running, represent a major draw for tourists. They can mitigate seasonality by offering summer and winter activities and attract a demographic that values physical challenge and connection with nature.

The study by Lun et al. (2016) on best practices in the Alps, Apennines, and Carpathians highlights several cases where sports are integral, such as the trans-boundary long-distance hiking trail "Lechweg" and the tour operating company "Bucovina Adventure" that focuses on outdoor sports. These initiatives demonstrate that sports activities provide a structured form for engaging with the mountain landscape, transforming it from a static panorama into an interactive experience. This active engagement often leads to longer stays and higher expenditure, particularly when sports are packaged with other local offerings like gastronomy and accommodation.

2.4 *The Synergy of Tripartite Integration*

The true potential for mountain regions lies in the synergistic integration of culture, sports, and tourism. This is not merely about offering all three simultaneously, but about creating products and experiences where they are inseparably intertwined. For example, a "questing" or treasure hunt activity (sport) can be designed to lead participants through a cultural landscape, teaching them about local history and folklore (culture) along the way (Lun et al., 2016). Similarly, a traditional festival (culture) can incorporate sporting competitions, or a sporting event can be themed around local myths and legends.

This synergy creates a more compelling and holistic visitor experience. It also spreads economic benefits more widely across the community, involving not only hotels and guides but also farmers, food producers, artisans, and cultural performers. The integrated model fosters cross-sectoral networks and cooperation, which Lun et al. (2016) identify as a key success factor. It builds a more resilient tourism economy that is less vulnerable to shifts in market trends and more capable of withstanding external shocks.

2. Methodology

This literature review employed a systematic approach to identify, evaluate, and synthesize relevant scholarly work on the integration of culture, sports, and tourism in mountain regions. The primary aim was to provide a comprehensive and critical state-of-the-art overview rather than a statistical meta-analysis.

The literature search was conducted using major academic databases, including Scopus, Web of Science, and Google Scholar. Key search terms and combinations included: "mountain tourism," "cultural tourism," "sports tourism," "adventure tourism," "industrial integration," "rural development," "sustainable tourism," and "destination management." The search was limited to publications from 2020 to 2025 to ensure the review's contemporaneity, with foundational works from earlier periods included for necessary context.

The analysis primarily draws upon two robust types of studies to ensure both qualitative depth and quantitative rigor: a) **Qualitative Case Studies:** In-depth analysis of best-practice initiatives from major European mountain ranges (the Alps, Apennines, and Carpathians), as investigated by Lun et al. (2016). This study provided rich, empirical data from 11 different initiatives across five countries (Germany, Italy, Romania, Ukraine, Poland), offering insights into success factors, challenges, and practical implementation mechanisms. b) **Quantitative Analyses:** Systematic measurement of cultural and tourism industry integration in Southwest China's mountainous provinces (Chongqing, Sichuan, Yunnan, Guizhou) from 2012 to 2020, as performed by Shang and Xie (2025). This research used an improved entropy value method and a coupling coordination degree model to objectively measure integration levels, providing a macro-level, data-driven perspective.

The process involved scanning article titles and abstracts for relevance, followed by a full-text review of selected papers. Key information was extracted pertaining to research context, methodology, key findings on drivers, barriers, outcomes, and theoretical contributions. The findings were then synthesized thematically to address the research objectives. A significant limitation of this methodology is the geographical focus on Europe and China, which may affect the global transferability of findings. Furthermore, the nascent stage of research explicitly on the *tripartite* integration means that inferences often had to be drawn from studies focusing on the more established dyads of culture-tourism and sports-tourism. The research process is shown in Figure 1.

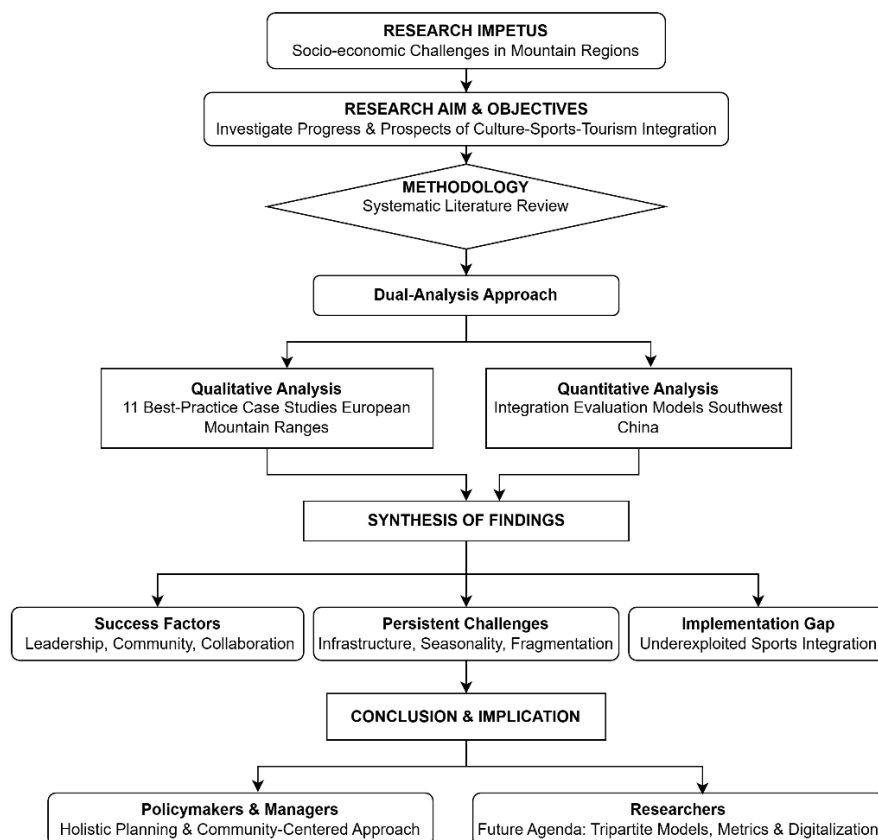


Fig. 1: Research process

4.0 Findings

4.1 Key Drivers of Integration

The integration of culture, sports, and tourism in mountain regions is propelled by a confluence of demand-side and supply-side drivers. On the demand side, the modern tourist's pursuit of ****authentic and experiential activities**** is paramount. As one interviewee from a

rural tourism cooperative in Italy stated, "What we offer is authentic, therefore it is successful... We offer 'real situations'" (Lun et al., 2016). This desire for immersion in local heritage and ways of life creates a natural market for integrated offerings.

On the supply side, the imperative for regional economic diversification is a powerful driver. Mountain communities facing the decline of traditional sectors see integration as a strategy to create new employment opportunities, stimulate entrepreneurial activity, and revitalize local economies (Lun et al., 2016; Shang & Xie, 2025). This is often supported by policy and funding initiatives, such as China's rural revitalization strategy (Yuqiao, 2025) and the European Union's Rural Development Policy, which explicitly encourage economic diversification through tourism.

4.2 Critical Success Factors

Analysis of best practices reveals several recurring success factors:

- a) **Leadership and Visionary Thinking:** Successful integration often hinges on the presence of dedicated individuals or organizations that champion the initiative. This leadership is crucial for generating initial acceptance, creating a common vision, and taking calculated risks (Lun et al., 2016). This can come from private entrepreneurs, community cooperatives, or public administrators.
- b) **Community Participation and Empowerment:** Integrating the local population in decision-making and ensuring they benefit economically is fundamental. Prat Forga and Cánoves Valiente (2014) emphasize "endogeneity" and local ownership, while Lun et al. (2016) note that a "participative approach" is decisive for generating long-term, cross-sector relationships.
- c) **Cross-Sectoral Collaboration and Networking:** Strong formal and informal networks between tourism, cultural, agricultural, and sports actors are essential. Cawley and Gillmor (2008, as cited in Lun et al., 2016) highlight that such networks are instrumental in adding value to the local community. This collaboration can be horizontal (between local businesses) or vertical (with regional and national agencies).
- d) **Quality and Authenticity:** The offered products and services must be of high quality and deeply rooted in the local context. This "embeddedness" confers uniqueness and competitive capacity (Prat Forga & Cánoves Valiente, 2014). It is about leveraging genuine local resources rather than creating artificial attractions.

4.3 Persistent Challenges and Barriers

Despite the clear potential, significant challenges impede integration:

- a) **Infrastructural and Geographical Constraints:** Mountain regions often suffer from poor accessibility, inadequate transportation links between attractions, and a lack of supporting services (Yuqiao, 2025; Lun et al., 2016). This includes issues like insufficient parking, poor signposting, and a scarcity of quality accommodation.
- b) **Administrative and Governance Hurdles:** Administrative fragmentation, bureaucracy, and a lack of coordinated planning are frequent obstacles. Shang and Xie (2025) discuss the need to "break administrative and geographical restrictions," while Yuqiao (2025) points to the lack of an "overall plan" in Zitong County, China.
- c) **Seasonality:** Many mountain destinations face pronounced seasonal fluctuations, with peaks in summer and/or winter and troughs in the shoulder seasons. This poses a challenge for the year-round viability of businesses and employment.
- d) **Risk of Cultural Commodification:** As cultural elements are packaged for tourist consumption, there is a risk of diluting or distorting their authentic meaning for commercial gain. Maintaining the integrity of cultural practices while making them accessible to tourists is a delicate balancing act.
- e) **Lopsided Integration:** The findings consistently indicate that while culture-tourism integration is advancing, the sports component is often the weakest link. Shang and Xie's (2025) measurement focuses on culture and tourism, and Yuqiao (2025) explicitly notes the need to develop sports tourism festivals. This represents a significant "implementation gap" in the tripartite model.

5.0 Discussion

The findings underscore that the integration of culture, sports, and tourism is a complex, multi-stakeholder process that is context-dependent yet shares common foundational elements. The success factors of leadership, community participation, and networking align strongly with the principles of destination leadership (Pechlaner et al., 2014) and collaborative governance. This suggests that the process of integration is as important as the final product. Effective integration requires a governance structure that facilitates dialogue, builds trust, and aligns the often-divergent interests of various actors.

The quantitative analysis from Southwest China (Shang & Xie, 2025) provides a valuable model for tracking progress. Their finding that the integration degree evolved from "on the verge of dissonance" to "intermediate coordination" between 2012 and 2020 demonstrates that integration is a dynamic process that can be measured and managed. However, their model also reveals the phenomenon of alternating lagging subsystems (sometimes culture, sometimes tourism), highlighting the difficulty of achieving perfectly balanced development. Future research could expand this model to explicitly include indicators for the sports industry, such as investment in sports facilities, participation rates in sporting events, and revenue from sports-related tourism.

The under-exploitation of sports within the integration paradigm is a critical discussion point. Sports offer a powerful vehicle for achieving several strategic objectives: extending the tourist stay, attracting niche markets (e.g., endurance athletes, climbing enthusiasts), promoting physical well-being, and creating vibrant, active destination images. The case of "Bucovina Adventure" (Lun et al., 2016) demonstrates how sports can be the central pillar for building a tourism offer in a peripheral region. More such examples are needed, particularly those that creatively fuse sports with cultural narratives—for instance, marathons on historic trails or cycling tours connected to local culinary traditions.

Furthermore, the role of digital technology, only briefly mentioned in the findings, warrants greater emphasis in the discussion. Digital tools can be a great equalizer for remote mountain areas. They can be used for virtual pre-experiences, online booking platforms for integrated packages, smart navigation, storytelling through augmented reality, and targeted marketing through social media, as noted by a tourism operator in Poland (Lun et al., 2016). Digitalization can enhance operational efficiency, enrich the visitor experience, and provide valuable data for destination management.

6. Conclusion and Recommendations

This literature review confirms that the integrated development of mountain culture, sports, and tourism is a potent strategy for fostering sustainable, resilient, and vibrant mountain economies. It moves beyond isolated sectoral development to create a synergistic ecosystem that enhances destination competitiveness, empowers local communities, and safeguards natural and cultural heritage. The core of this integration lies in creating authentic, high-quality experiences that are deeply embedded in the local context and supported by strong leadership and collaborative networks.

Based on the synthesized findings, the following recommendations are proposed:

For Policymakers and Destination Managers: a) Adopt Holistic Planning: Develop integrated master plans that explicitly link cultural, sports, and tourism development, breaking down administrative silos. b) Invest in Enabling Infrastructure: Prioritize investments that support integration, such as multi-use trails, good signage, reliable public transport between attractions, and digital connectivity. c) Foster Leadership and Networks: Establish and fund platforms for cross-sectoral collaboration and provide training for community leaders and entrepreneurs in integrated destination management. d) Champion Quality and Authenticity: Establish quality standards and certification schemes that reward businesses for leveraging genuine local resources and providing authentic experiences. e) Strategically Incorporate Sports: Actively develop and market sports events and activities that are uniquely suited to the local landscape and culture, using them to address seasonality and attract new markets.

For Researchers: a) Develop Tripartite Integration Models: Conduct empirical research to develop and test theoretical models that explicitly incorporate the sports industry alongside culture and tourism. b) Create Refined Evaluation Metrics: Design robust, standardized metrics for measuring the level and impact of tripartite integration, building on the work of Shang and Xie (2025). c) Explore the Digital Frontier: Investigate the role of digitalization, including AI, VR, and big data, in facilitating integration, enhancing experiences, and improving destination resilience. d) Expand Geographical Scope: Conduct more case studies in under-researched mountain regions, such as the Andes, Himalayas, and African mountain ranges, to improve the global relevance of findings.

7.0 Limitations

While this review provides a comprehensive synthesis of the current literature, it is subject to several limitations that should be considered when interpreting its findings. Firstly, the analysis is constrained by its primary reliance on case studies and data from European and Chinese mountain contexts. The socio-economic structures, policy frameworks, and development stages in these regions may not be fully representative of mountain areas in other parts of the world, such as South America or Africa, potentially limiting the global generalizability of the conclusions. Secondly, the field of research explicitly focusing on the *tripartite* integration of culture, sports, and tourism is still in its nascent stages. Consequently, a significant portion of the evidence and inferences presented had to be derived from studies that primarily examined dyadic relationships, such as culture-tourism or sports-tourism. This necessitates a degree of extrapolation and suggests that the specific dynamics, challenges, and synergies of the three-sector model require further dedicated investigation. Finally, the methodological approaches of the reviewed studies varied significantly, from qualitative case analyses to quantitative integration models. The absence of a standardized, universally applicable framework for measuring the level and impact of tripartite integration makes direct comparisons across different studies and regions challenging.

Future research would benefit from developing and employing consistent metrics to better assess and compare integration efforts.

8.0 Paper Contribution to Related Fields of Study

This literature review makes several distinct contributions to the academic discourse. Firstly, it directly addresses a identified gap in the literature by focusing specifically on the tripartite integration of culture, sports, and tourism, whereas previous reviews have predominantly focused on dyadic relationships. By synthesizing evidence from both qualitative case studies and quantitative evaluations, it provides a more comprehensive picture than studies limited to a single methodological approach.

Secondly, it bridges the conceptual with the practical. The paper translates theoretical concepts like "embeddedness," "endogeneity," and "coupling coordination" into identifiable success factors and challenges that are actionable for destination managers and policymakers. It provides a consolidated framework for understanding what drives successful integration and what barriers must be overcome.

Finally, it proposes a clear and urgent agenda for future research. By highlighting the under-explored role of sports, the potential of digital tools, and the need for globally relevant models and metrics, this review seeks to stimulate further scholarly inquiry in a field that is critical to the sustainable future of the world's mountain regions.

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