Managing Winery Tourism Across Diverse Terroirs: A Case Study of Yunnan's High‑Altitude Vineyards

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This paper studies the management of winery tourism amid diverse terroirs at Yunnan's high-altitude wine-producing regions, especially the mountain vineyards of Shangri-la in southwestern China. These areas host a montage of extreme elevations, fragile ecosystems, and rich ethnic cultural heritage for wine tourism development stages. As part of an effort to fulfil qualitative research, a descriptive analysis fitting in with structured interviews was addressed to main agents, who in turn assisted in field-test identification of examples of terroir-based branding practices, practices enabling cultural integration and territorial-experience. Of interest is the suggestion that similarly, much-needed infrastructure, the availability of labour, environmental fragility, or a lack of policy implementation needs should be accommodated by several potential benefits from eco-cultural tourism, and cooperation at the regional level for promoting sustainable development, fostered ultimately by climate-resilient adaptations. The paper concludes with suggestions to industry and policy actors in other mountain wine regions undergoing like climatic and geographical complexities.

Keywords: winery tourism, Yunnan, sustainable tourism, management

Introduction

Wine tourism has slowly but surely become a strategic element of the regional and industrial development of the wine sector in China (Mizik & Balogh, 2022). Sillani, Miccoli, and Nassivera (2017) found that the shifting of consumer preferences from purely consumption-oriented to experiential travel and authenticity based on soil and climate have made wineries in different parts of the country stretch their focus beyond production and make visitor experiences immersive. This is particularly true for Yunnan Province where the most unique wine-growing areas in China are located. The province made a name for itself due to its spectacular mountain ranges, deep river valleys, and various ethnic communities, and it is now known for having vineyards at 2,000 meters above sea level and more—among the highest commercial vineyards in the world (Wang et al., 2017). These harsh conditions make a very interesting and at the same time difficult context for the development of both viticulture and tourism.

Cultivation of grapes and making wines at high altitudes like Shangri-La provide the hills with a unique mix of environmental factors such as a great difference between day and night temperatures, a lot of ultraviolet rays, steep slopes, and finally, the management of vineyards that require a lot of hands (Zheng, 2024). Castelló (2021)

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indicated that these characteristics of the terroir are to depict the region's wines and at the same time, they are being used for the tourism of the area as powerful storytellers. The presence of Tibetan, Naxi, and Lisu cultural heritage makes the region even more attractive and gives the wineries a chance to wrap their tourism strategies around the local traditions, architecture, and community-based experiences (Galipeau, 2017). Consequently, Yunnan could stand out among China's wine regions like Ningxia and Shandong that are already well-established by presenting a mixed eco-cultural tourism model which is based on the landscape and heritage.

Wineries in Yunnan, however, have this strong point yet they still must deal with complex challenges in coming up with sustainable tourism offerings. Due to the steepness of the mountain roads, accessibility is very poor and this coupled with the seasonal weather disruptions makes it worse (Yang, 2012). Because of the environmental delicacy, more restrictions are introduced, and the management of the area must be very careful so that there is no erosion, no disturbance of wildlife, no depletion of water resources (Li & Bardají 2017). Duan, Arcodia, and Ma (2015) discovered that the region suffers from labour shortages particularly in the areas of hospitality and tourism, and this impacts the quality of service and the capacity of operations. Besides, the policy frameworks are very fragmented and there is no cooperation between the different regions which are the main factors hindering the long-term planning, the investment, and the destination branding.

Considering these factors, learning how wineries in Yunnan deal with tourism in such different and extreme terroirs is necessary if the making of the industry more resistant and the region more competitive are the aims. The research investigates the tactics of high-altitude wineries, spots the main constraints that the latter encounter, and analyses the potential for sustainable tourism development. By using a qualitative interpretive approach based on stakeholder theory, it offers a beneficial perspective in clarifying the role of various actors (Freeman, 1984). The study throws up context-specific insights that not only feed discussions on wine tourism in academia but also help the practical moves support mountainous wine areas in China and elsewhere.

Research Objectives

1. To explore how wineries in Yunnan are managing tourism in diverse and extreme terroirs.

2. To recognize the key problems confronting tourism development in vineyards that are located at high altitudes.

3. To evaluate the opportunities and prerequisites for viticulture tourism to develop sustainably.

4. To propose stakeholder- and region-specific recommendations to industry actors and policymakers.

Methodology

Study Design

The current study has taken a qualitative interpretative approach to examine the stakeholder perceptions and practices in winery tourism in the high-altitude vineyards of Yunnan. This mode of approach allows the terrain variations, cultural identity, and tourism management to emerge in the participant experiences in all their nuanced complexity.

Sampling and Participants

Therefore, in the research, purposeful sampling was applied for the identification of key stakeholders directly involved in vineyard activities and tourism administration. The semi-structured interviewing was carried out on six key informants engaged in high-altitude wine industry in Yunnan, primarily in the Shangri-La and

Lancang river valley regions. The participants included managers of vineyards, tourism management coordinators, and those representing local cultural organizations.

Table 1

Characteristics of Interviewed Participants in Yunnan

Participant ID	Position	Years of exp	Key focus
Y1	Vineyard manager	6	High-altitude viticulture
Y2	Tourism supervisor	8	Visitor experience design
Y3	Winery owner	10	Cultural integration
Y4	Viticulture technician	7	Terrain adaptation
Y5	Tourism manager	5	Eco-tourism development
Y6	Community liaison	12	Local partnerships

Data Collection

The interviews were semi-structured given that they were formally renamed "unstructured", because the interviews were conducted in two variant styles: local and online. The range of time allocations allowed was intended to be 60 minutes. The study sought for answers to research questions related to tourism strategies, "winelands" branding, cultural elements, environmental management, policy perceptions, and infrastructural challenges. Other documents such as tourism literature brochures, policy documents, and winery advertisements were examined for triangulation of data.

Data Analysis

Thematic Analysis was used to identify recurring themes across successive interviews. Codes were developed under the headings; terroir narratives, visitor management, environmental constraints, cultural practices, infrastructural issues, and collaborative opportunities over the months that the data collection was taking place. Themes were then grouped together to create the analytical categories as in the Results section.

Results

Three broad thematic categories were discovered in the analysis of interviews:

(1) tourism strategies across varied terroirs,

(2) challenges and structural constraints,

(3) opportunities and enabling conditions.

Table 2

Tourism Strategies Implemented by High‐Altitude Wineries in Yunnan

Strategy category	Specific practice	Description/benefit
Terroir-based branding	Altitude-focused tasting sessions	Uses extreme terroir as a unique selling point.
Cultural integration	Tibetan/Naxi/Lisu architectural features and cultural displays	Enhances authenticity and visitor engagement.
Landscape-driven experiences	Vineyard viewpoints and boutique lodges	Leverages dramatic mountain scenery.
Educational programs	Vineyard walks, grape-growing workshops	Strengthens visitors' understanding of high-altitude viticulture.
Sustainability-led tourism	Eco-trails, solar-powered facilities	Protects fragile ecosystems and appeals to eco-conscious tourists.

Theme 1: Terroir‑Driven Tourism Approaches

Theme 1 demonstrates that the wineries in Yunnan's lofty areas are the ones that have taken up terroir-driven tourism approaches. They are the ones that have so far successfully marketed wine among the Chinese wine market with their altitude, extreme climate, and beautiful scenery being the key elements of the visiting experience. Wineries have created different combinations of altitude-oriented tastings, educational vineyard walks, and lookout points that are scenic all to elain how the unique environmental conditions lead to the development of the wine character. Local cultural architecture and indigenous agricultural practices are very often integrated to authenticate the wine more. These vineyard views are likely to foster this brand image and draw lots of tourism, by nature's top end. The undertaking requires a decent infrastructure where both tourists and locals can move safely in and out even through difficult conditions.

Theme 2: Key Constraints to Tourism Development

Several significant deterring attributes complicate the progression of winery tourism in high up regions of Yunnan Province. A primary obstacle is the lack of accessibility-terrain obstacles, distance locations, and seasonal disorder restrict visitors' movement on the spot. Further obstruction was brought by the shortage of labor in the industry, where there exists an imbalance between rural area-trained hospitality workers and hotels. Then there is the unwanted intrusion-the environment's fragile setting that demands a higher level of visitor management with the least interference into land use. Also, the policy sphere and zoning are subject to great fragmentation and ambiguity for long-term planning. Basically, all together these constraints really stymie the gigantic multiplier effect achievable via the scales and sustainability of winery tourism through such mountainous terroirs of Yunnan.

Table 3

Challenges Affecting Winery Tourism in Yunnan

Challenge category	Specific challenge	Impact on tourism
Logistical barriers	Steep terrain, remote access	Limits visitor flow and increases transportation cost.
Labor shortages	Lack of trained tourism staff	Creates inconsistent service quality
Environmental risks	Fragile ecosystems, erosion	Requires strict visitor management protocols.
Regulatory gaps	Fragmented zoning rules	Causes uncertainty and planning difficulties.
Cultural sensitivity	Balancing authenticity and commercial tourism	Risk of cultural misrepresentation.

Theme 3: Enabling Opportunities

Theme 3 discovers several contributing bridges for the winery tourism boom in the highland regions of Yunnan. Rising eco‑cultural tourism demands from domestic tourists meet with the unique conjunction of splendid scenery and rich ethno-cultural history found in Yunnan. Enabling programs for wine tourism are crucial for wider northeast-west cooperation, taking form in the creation of integrated wine routes and shared marketing. Such climate‑adaptive constructions come with high explicit sustainability issues, though they attract visitors by providing eco-trails and renewable energy. Thanks to such a collaboration, deep-rooted communities feature more support to trace cultural particulars and social standing. Also, some leading governmental giblets coming up target rural recovery provide one possible future for encouragement through policy and finance for tourism development.

Table 4

Enabling Opportunities for Tourism in Yunnan's High -Altitude Regions

Opportunity	Specific factor	Description/impact
Eco-cultural tourism trends	Demand for authentic experiences	Supports long-stay tourism and terroir differentiation.
Regional collaboration	Development of wine routes	Enhances branding and disperses tourist traffic.
Climate-resilient innovations	Adaptive architecture and renewable technologies	Aligns with environmental sustainability.
Community partnerships	Local cultural involvement	Builds authenticity and social sustainability.
Government Support	Growing interest in eco-tourism and rural policy	Provides potential for grants and infrastructure investments.

Discussion

The results prove that the high-altitude wineries of Yunnan are implementing a multi-faceted strategy for managing tourism by considering the soil, the culture, and the environmental factors. The pairing of very high altitude and deep cultural roots creates a solid ground for telling different stories about tourism. Yet, these advantages are weakened by the shortages of the structure.

Adaptation to Terroir Diversity

Dealing with the terroir diversity is a must for the wineries that are in the high-altitude areas of Yunnan, where the elevations, climate, and terrain changes are so different that they influence both the agriculture and the tourist flow dramatically (Wei, Wang, & Li, 2025). The wineries have reacted to this by creating narratives that are focused on altitude and that point out the great, namely because of extreme conditions, grape quality, and wine style. Besides, the different tourist activities are designed according to these environmental distinctions, and they include, among others, vineyard walks, educational tastings, and landscape-based activities which are meant to signal out the special microclimates. Such an adaptation not only adds to the differentiation of the wineries but also offers a mere visitor engagement. On the downside, it also necessitates the use of flexible infrastructure and thorough planning to cope with the drawbacks of steep areas, delicate ecosystems, and diverse vineyard sites with varying weather conditions.

Structural Constraints

The regions with tall elevations in Yunnan have a vital hurdle in developing winery tourism on account of structural constraints (Zhang et al., 2023). As a result of limitations in transportation arrangements, recreation terrain, and road closures during part of the year, wineries have incurred higher costs and become less accessible. Moreover, the lack of trained hospitality professionals in such remote rural areas is a labour shortage that severely limits the quality of the tourism services. One of the factors which environmental fragility consists of is soil erosion risk, which along with water scarcity, is a limitation for the tourism development scale. It also requires the implementation of strict ecological management. Besides, fragmented policy frameworks and unclear zoning regulations bring uncertainty for long-term planning and investment. The above-mentioned structural barriers combinedly inhibit the winery tourism in the area from growing, being sustainable and being competitive.

Role of Cultural Integration

A cultural correlation is the foremost agent at getting related and worthy experiences possible at wineries at the high altitude of Yunnan. To the places where they exist, thanks to the Tibetan, Naxi, and Lisu communities surrounding them, wineries are filled with cultural sufficiency; a pool not only for storytelling but also draws

magnetism for guests to involve themselves. By-and-large, most wineries embrace traditional architectural styles, use local crafts, and host community-based performances to exhibit the unique cultural legacy of the area. Here the cultural integration of the district at stake differentiates Yunnan from the world of wine and supports to maintain culture while entertaining the locals economically. Nonetheless, it is crucial to be careful in the authenticity issue since it requires sensitively working together with the communities to avoid commercialization. When cultural integration is done rightly, it fortifies the identity of the destination and provides unforgettable, culture-based tourism experiences.

Global Implications

Further enhancements in the altitude winery tourism in Yunnan can influence other mountain wine regions around the world with similar environmental and cultural hurdles in both cautious and cautious ways. Wong (2022) shared that Yunnan is a best example of how extreme terroir when combined with sustainability-driven principles and cultural convergence, might make for unique tourism identity, highly marketable. Other areas in Andes, Himalayas, and Alps could use their elevation, landscapes, and culture to stand out as well. In contrast, data need to be collected on causes of hindrances, the condition, awareness, pressures, legislation and challenges; parallel issues existing in other parts of the world, solutions need to be devised ensuring sustainable tourism development to prosper in the region. The region's learning points have been the calling for the collaboration of the government, local communities, and the innovation of climate-smart solutions throughout the world.

Recommendations

Table 5

Consolidated Recommendations for Enhancing Tourism Across Diverse Terroirs

Category	Recommendation	Description/impact
Wineries	Develop altitude-focused visitor programs	Strengthens terroir branding and visitor engagement.
	Invest in staff training	Improves service consistency and tourism capacity.
	Adopt sustainable infrastructure	Protects fragile environments and aligns with eco-tourism values.
	Form regional alliances	Establishes coordinated wine routes and shared marketing.
Policymakers	Create unified zoning rules for winery tourism	Reduces uncertainty and guides long-term planning.
	Provide tourism infrastructure grants and subsidies	Supports rural development and encourages sustainable practices.
	Invest in hospitality training for rural communities	Labor shortages in remote regions.
	Support cultural preservation initiatives	Ensures authenticity and benefits local communities.

Conclusions

The development of winery tourism across Yunnan's high-altitude vineyard regions strengthens and elevates the interplay between extreme terroir, cultural heritage, and emerging tourism practices. These wineries operate as case studies to demonstrate that Yunnan wineries or in the very least the vineyard properties are succeeding in encapsulating elements associated with their natural and infrastructural attributes in developing differentiated experiential tourism offerings. Altitude-forbidden gossips, land—focused styling, and some cultural amalgamations-primarily that of the Tibetans, Naxi, and Lisu—constitute a primary case for strategizing towards better engagement and identification in the rapidly bursting Chinese wine tourism market.

Besides these promising robust aspects, the study also indicates persistent limiting factors that hinder tourist growth. The presence of limited transport infrastructure, the fact that terrain is steep and remote, and that climatic issues are prominent means that basic accessibility and connectivity issues—in transport services—that need to be further factored into the operational comfort of various wineries. The quality and availability of water, ranks perhaps as the most important necessity of the environmental challenges of the region, and thus, it must be urgently addressed to secure the future sustainability and environmental integrity of wineries under an intensifying tourism growth. Labor shortages and an insufficiently trained workforce behaving in line with the changing tastes of tourists impede the potential of wineries further to provide consistent high‑quality visitor experiences. The policy framework regarding each sector is frail and needs specially tailored coordination across many stakeholders for enabling successful long‑term planning and investment.

Nonetheless rampant opportunities exist within these hurdles. Ecocultural tourism stands shoulder to shoulder with Yunnan in terms of geography and culture. The birth of collaboration between wineries, initiation for high altitude wine routes, and innovations in sustainable infrastructure symbolize the redirection towards giving tourism an impetus. Another optimistic blotch exists in the possibilities for stronger government support via rural regeneration policies and ecotourism.

Findings emphasize high altitude wine tourism in the Yunnan to be resilient in future, with Yunnan's best means of growth in such tourism lying in the integrated development that is well balanced between environmental conservation, cultural authenticity, and coordinated state intervention. The experiences in Yunnan provide useful insights for the grape vineyard of the world's mountainous regions, showing how extreme terroir and culture can be transformed into the sustainable tourism commodity by concerted and well-structured development strategies.

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