Strategies for the Development of Agriculture Tourism in Xi'an

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Abstract

Background and Aim: Agriculture tourism in Xi'an has the potential to significantly enhance local economic development, cultural preservation, and environmental sustainability. This study aims to analyze the current status and development strategies of agriculture tourism in Xi'an. The primary goal is to provide insights into optimizing the sector to achieve sustainable growth and balance economic, social, and environmental responsibilities.

Materials and Methods: The study employs a mixed-methods approach, including questionnaires, focus group discussions (FGD), and expert interviews, to gather comprehensive data. SWOT analysis is used to identify the strengths, weaknesses, opportunities, and threats within the agriculture tourism sector in Xi'an. This approach ensures that multiple perspectives are considered to develop a holistic understanding of the current challenges and opportunities.

Results: The findings indicate that improving infrastructure, enhancing marketing strategies, and diversifying tourism products are essential to increasing the sector's competitiveness and sustainability. The research highlights the need for community involvement, cultural resource development, and comprehensive training programs to elevate the quality of tourist experiences. By offering unique, authentic, and high-quality cultural and ecological tourism experiences, Xi'an can attract and retain visitors, boosting its reputation as a premier destination.

Conclusion: This study provides valuable recommendations for policymakers and practitioners, emphasizing the importance of infrastructure development, strategic marketing, and community engagement in promoting sustainable agriculture tourism. The insights gained can guide future initiatives to maximize economic benefits while preserving cultural and environmental values.

Keywords: Agriculture Tourism; Xi'an; SWOT Analysis; Sustainable Development; Marketing Strategy

Introduction

The Silk Road Economic Belt, proposed by President Xi Jinping in 2013, aims to foster economic cooperation between Asia and Europe to promote shared prosperity and address global market competition(Wolszczak-Derlacz and Lu 2022). Known as "the world's longest economic corridor with the greatest potential for development" (Lin 2021), it supports both national economic recovery and the development of underprivileged countries. Many regions have completed their initial infrastructure development, paving the way for further growth in cultural industries and financial investments. This presents a rare opportunity for Xi'an, the ancient starting point of the Silk Road, to leverage its strategic location for new development (Bernini, Emili et al. 2021). Despite its rich cultural and natural resources, Xi'an's tourism industry has yet to achieve the competitiveness it deserves (Chen 2024). In response to the demands of the internet era and tourism transformation, Xi'an needs to transition from traditional tourism to smart agricultural tourism, capitalizing on the Silk Road Economic Belt's opportunities. Since 2011, several cities, including Zhenjiang and Tianjin, have been selected as pilot cities for agricultural tourism, marking the beginning of a nationwide shift toward smart agricultural tourism. Xi'an, along with other key cities, has been actively following this trend since 2014(Tang, Ren et al. 2022).

Agricultural tourism in Europe, with over a century of history, emphasizes deep and immersive experiences, where visitors actively engage in agricultural activities rather than just observing (Vidickienė, Vilkė et al. 2020). In China, rural tourism began in 1987 with Sichuan's "Nongjiale" model. Over two decades, it has expanded nationwide, contributing to urban-rural integration, improving farmers' employment and income, and enhancing spiritual and cultural development in rural areas (Zhu, Hu et al. 2024).

Academic research on rural tourism in China began in the 1990s but remains focused on individual case studies without offering systematic guidance for sustainable development(Sun, Wang, et al. 2023). In Xi'an, while rural tourism has grown to a certain scale, it remains at a basic level,

centered on activities such as farm meals, agricultural sightseeing, and picking fruits, with limited market appeal and economic benefits (Wang, Cheng, et al. 2022). The sector faces challenges related to resource utilization, planning, market operations, and service quality (KaiLin and Mun 2024).

This study aims to address these challenges by conducting field and market research to analyze the characteristics and limiting factors of rural tourism in Xi'an. By constructing a development model for in-depth rural tourism, the research seeks to guide Xi'an's sustainable tourism growth and provide practical insights for similar efforts in other regions.

Objectives

To study the agriculture tourism theory and the current situation of agriculture tourism in Xi'an.
To develop the strategies for agriculture tourism in Xi'an.
To evaluate the feasibility of the strategies of agricultural tourism in Xi'an.

Literature review

Sustainable Development in Agricultural Tourism

Sustainable agricultural tourism emphasizes balancing environmental conservation with economic and social development (Nurjaya 2022). While tourism supports economic growth and cultural preservation, excessive protection or unchecked tourism may lead to environmental degradation (Baipai, Chikuta et al. 2021). Government intervention through policies, financial support, and planning is critical to achieving sustainable outcomes(Radovic, Petrovic et al. 2020). Innovation in tourism activities and management is necessary to prevent stagnation and promote long-term growth (Sishi, Wangminna et al. 2020).

Rural Tourism and Agricultural Tourism Integration

Rural tourism encompasses activities such as agrotourism, farm tourism, and folklore tourism, creating immersive visitor experiences (Ding 2024). In China, rural tourism has become a key driver for urban-rural integration, enhancing farmers' incomes and preserving local cultures (Zhu 2024). However, tourism development must balance environmental sustainability and equitable revenue sharing among stakeholders (Radović et al., 2020). The study emphasizes the need for diversified tourism models that adapt to evolving consumer demands and changing markets.

The Role of Leisure Agriculture in Regional Development

Leisure agriculture integrates tourism with agricultural activities, providing both recreational and economic benefits(Yen 2020). It has become an essential strategy for farm diversification, promoting regional economic growth, job creation, and cultural preservation (Wilson 2008). Successful leisure agriculture models combine tourism with local culture and offer hands-on experiences, enhancing visitor engagement and supporting rural communities(Su, Xiao, et al. 2023).

Strategic Tools: SWOT Analysis and TOWS Matrix

Strategic planning tools like SWOT analysis and the TOWS matrix identify strengths, weaknesses, opportunities, and threats. SWOT analysis evaluates both internal and external factors, helping organizations formulate strategies for sustainable development. The TOWS matrix extends this by cross-referencing factors to generate actionable strategies, ensuring that tourism plans leverage strengths, mitigate risks, and capitalize on opportunities(Phillip, Hunter, et al. 2010). These tools are particularly useful for structuring development strategies in Xi'an's agricultural tourism sector.

Review of Challenges and Opportunities

Challenges in rural tourism include weak market management, environmental degradation, and inconsistent local participation(Yang 2020). International research highlights the importance of governance-driven policies and integrated planning to achieve sustainable tourism(Rogerson and Rogerson 2021). In China, rural tourism must balance rapid urbanization with cultural preservation and equitable economic development(Lv, Hu et al. 2021). Effective strategies must incorporate both economic and non-economic benefits to ensure sustainable growth and community engagement(Font, Elgammal et al. 2017).

This literature review establishes the theoretical foundation for the study, emphasizing the importance of sustainable tourism strategies, the integration of agriculture with tourism, and strategic planning tools. The findings provide a framework for developing actionable strategies for agricultural

tourism in Xi'an, ensuring it contributes to economic growth, cultural preservation, and sustainable community development.

Conceptual Framework
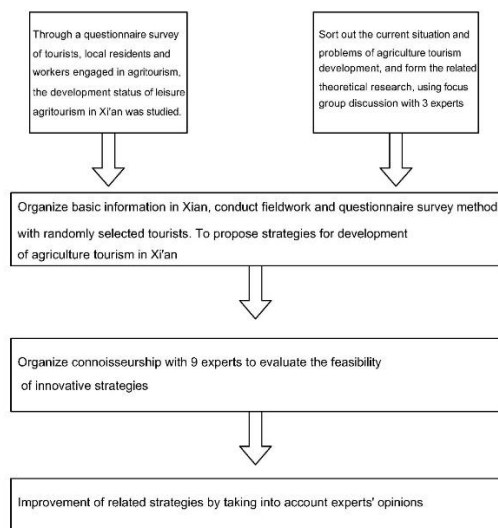
Figure 1 Research Theoretical Framework

Methodology

This research adopts a mixed-methods approach combining both qualitative and quantitative research. The research employs the following methodologies:

1. Population and Sample

    1.1 Population:

    The study focuses on the agricultural tourism sector in Xi'an, targeting three primary groups: Tourists visiting agricultural tourism sites in Xi'an

    Residents living in proximity to agricultural tourism areas

    Agricultural tourism practitioners, including business owners, employees, and experts in the field

    1.2 Sample Group:

    The sample consists of:

    401 tourists were surveyed to assess satisfaction with agricultural tourism services and facilities.

    408 residents were surveyed to understand perceptions of agricultural tourism.

    403 agricultural tourism practitioners were surveyed for insights into the current and future state of agricultural tourism.

    Sampling was carried out using stratified random sampling to ensure the sample was representative of each stakeholder group.

    1.3 Target Groups:

    Additional target groups include:

    10 experts were selected based on their expertise in agricultural tourism and tourism management.

    A focus group of 9 participants (tourism experts and officials) participated in strategic recommendation discussions.

2. Research Instruments

The research uses the following instruments:

    2.1 Questionnaires:

    Structured questionnaires were developed, with each targeting a specific group:

    Tourist Satisfaction Questionnaire for 401 tourists

Perceptions of Agricultural Tourism by Local Residents for 408 Local Residents

Agricultural Tourism Practitioners Questionnaire for 403 practitioners

2.2 Focus Group Discussions:

The focus group consists of 9 experts or tourism management officials from the tourism industry, aiming to develop strategic recommendations for the agricultural tourism industry.

2.3 Expert Interviews:

In-depth interviews were conducted with 10 experts in agricultural tourism, selected for their extensive experience in the field.

Each research instrument underwent expert review and was pre-tested with a pilot sample. Item-objective congruence (IOC) was calculated and found to be between 0.80 and 1.00, indicating good content validity. The reliability of the questionnaires was assessed using Cronbach's alpha, with a reliability value of 0.95.

3. Data Collection

Data were collected from both primary and secondary sources:

3.1 Primary Data:

Questionnaires: Distributed to tourists, residents, and practitioners

Focus Group Discussions: Conducted with tourism experts and officials

Expert Interviews: Conducted with 9 agricultural tourism experts

3.2 Secondary Data:

Collected from documentary sources such as books, academic papers, industry reports, and online resources relevant to agricultural tourism.

4. Data Analysis

The analysis was conducted in two parts:

4.1 Qualitative Data Analysis:

Data from focus groups and expert interviews were analyzed using thematic analysis to identify key themes such as community engagement, cultural preservation, and sustainability.

4.2 Quantitative Data Analysis:

Data obtained from the questionnaires were analyzed using descriptive statistics to calculate frequencies, means, and standard deviations. Additionally, a SWOT analysis was used to assess the strengths, weaknesses, opportunities, and threats of agricultural tourism in Xi'an. Statistical significance was tested using t-tests and F-tests to compare group differences and assess correlations.

5. Statistics Used in the Research

The following statistical techniques were employed:

Descriptive Statistics: Percentages, means, and standard deviations to summarize and describe the data.

SWOT Analysis: Identifying strengths, weaknesses, opportunities, and threats in the agricultural tourism sector.

Comparative Tests: t-tests and F-tests were applied to assess the variance and identify significant differences among the sample groups.

Results

Objective 1: To study the agriculture tourism theory and the current situation of agriculture tourism in Xi'an.

The research results indicate that visitors generally have a positive experience with agricultural tourism in Xi'an. Visitor scores for perceived quality, perceived value, and satisfaction are all above the midpoint, suggesting that agricultural tourism is well-received and provides a favorable experience.

Table 1 Descriptive statistical analysis of various research variables

variable quantity	N	Minimum	Maximum	Mean	Std. Deviation
Visitors' perceived quality	401	1	5	3.83	0.62

variable quantity	N	Minimum	Maximum	Mean	Std. Deviation
Visitors' perceived value	401	1	5	3.82	1.00
Visitors' satisfaction	401	1	5	3.87	0.94

Table 1 shows the descriptive statistical analysis of visitor experiences in agricultural tourism based on data from 401 respondents using a five-point Likert scale. Visitors' perceived quality has a mean score of 3.83 and a standard deviation of 0.62, indicating that visitors generally rate the quality of agricultural tourism experiences as high, with a strong consensus in their ratings. Visitors' perceived value has a mean score of 3.82 and a standard deviation of 1.00, showing more variation in opinions regarding the value received, suggesting room for improvement in delivering a perceived value. Visitors' satisfaction has a mean score of 3.87 and a standard deviation of 0.94, reflecting a high level of overall satisfaction with some variability.

Overall, these findings show that agricultural tourism in Xi'an receives positive evaluations from visitors, particularly in terms of quality and satisfaction. However, there is room to further enhance perceived value to improve the overall visitor experience.

Objective 2: The research results identified strategies for the development of agricultural tourism in Xi'an.

The SWOT and TOWS matrix analysis highlights key strategies to leverage strengths, address weaknesses, and manage opportunities and threats for Xi'an's agricultural tourism development, based on insights from tourists, residents, and industry employees.

Table 2 TOWS Matrix of Xi'an Agricultural Tourism Tourist Survey Questionnaire

	External Environment	
	Strengths (S)	**Weaknesses (W)**
Internal Environment	13. Security supervision efforts in accommodation (3.81) (S) 14. Complete safety facilities in lodging or farmhouse (3.84) (S) 15. Friendly service attitude of receptionists in lodgings or farmhouses (3.81) (S) 16. Accommodation environment characterized by rural folklore (3.78) (S) 19. Rich and diverse taste and variety of dishes (3.85) (S) 20. Good quality and attitude of catering staff (3.84) (S) 21. Reasonable price of catering (3.87) (S) 22. Good condition and smooth roads leading to leisure agro-tourism destinations (3.86) (S) 27. Recreation programs with local agricultural characteristics (3.84) (S)	12. Comfortable and hygienic accommodation (1.29) (W) 17. Comfortable and relaxing dining environment (2.37) (W) 28. Rich variety and good experience of recreation programs (2.31) (W) 29. Security in various entertainment programs (2.38) (W) 30. Interesting activities in leisure agriculture tourism (2.36) (W) 39. Convenient access to information (2.40) (W) 44. Acceptable spending in leisure agro-tourism (2.34) (W) 45. High cost-effectiveness of various spending in leisure agro-tourism (2.24) (W)
Opportunities (O) 23. Clear and accurate signage (3.91) (O)	SO SO1 = S16, S19, S20, S13, S14, O42, O49, O38, O48: Integrate advanced safety facilities and	WO WO1 = W12, W17, O23, O38: Address visitor needs for cleanliness and comfort

	External Environment	
	Strengths (S)	**Weaknesses (W)**
38. Strong overall service consciousness (3.84) (O) 42. Value for money in leisure agro-tourism experience (3.86) (O) 48. Favorable opinion of agritourism in Xi'an area (3.89) (O) 49. Higher satisfaction with agritourism in Xi'an compared to other places (3.85) (O)	service advantages to improve the safety and service quality of leisure agricultural tourism in Xi'an. SO2 = S22, S27, O23: Enhance visitor convenience by combining well-maintained road infrastructure, local agricultural entertainment projects, and clear directional signage.	by improving service quality and environmental conditions. WO2 = W28, W30, W39, O42, O48: Enrich tourism offerings and upgrade infrastructure to increase the diversity of tourism experiences and facilitate easier access to information. WO3 = W45, O49: Develop cost-effective leisure agricultural tourism products to increase economic benefits.
T	**ST**	**WT**
18. Clean and hygienic dining food (2.30) (T) 31. Reasonable prices for recreational programs (2.42) (T) 32. Comfortable shopping environment (2.42) (T) 33. Reasonable prices for handicrafts and souvenirs with local characteristics (2.43) (T) 40. Remarkable ecological environment protection, clean and tidy (2.34) (T) 43. Reasonable total expenses in leisure agro-tourism (2.31) (T) 46. Educational significance and cost-effective tourism spending in participatory activities (2.39) (T) 50. I will continue to revisit this leisure agritourism site in the future (3.91) (T) 51. I will recommend my friends and relatives to participate in Agricultural tourism (2.38) (T)	ST1 = S15, S20, S19, S21, T18, T31, T43: Enhance dining service quality and price satisfaction to foster visitor confidence in the consumption experience. ST2 = S13, S14, T50, T46, T51: Strengthen safety facilities and environmental protections to boost visitor trust and encourage word-of-mouth recommendations. ST3 = S16, S22, S27, T40, T32: Optimize ecological tourism experiences and infrastructure to enhance the diversity and comfort of the overall tourism experience.	WT1 = W12, W17, W45, W44, T18, T32: Improve cleanliness standards and service environment to increase visitor trust and satisfaction. WT2 = W28, W33, W29, W30, W39, T31, T50: Enhance recreational activities and cultural experiences to increase visitor engagement and recommendation willingness.

Table 2 shows the TOWS matrix from the perspective of tourists.

Strengths include effective safety measures, friendly service, diverse food options, and good infrastructure, while weaknesses involve inadequate comfort and limited recreational choices. Recommended strategies:

SO: Enhance safety, service quality, and infrastructure to improve the visitor experience.

WO: Address comfort issues, diversify activities, and develop cost-effective offerings.

ST: Improve dining quality and environmental protections to boost visitor trust.

WT: Enhance cleanliness and expand entertainment options to encourage repeat visits.

Table 3 TOWS Matrix for the Development of Xi'an Leisure Agriculture Tourism (Residents)

	External Environment	
	Strengths (S)	**Weaknesses (W)**
Internal Environment	6. Recreational tourism development enriches the local population (3.86) (S) 7. Tourism promotes local economic development (3.83) (S) 9. Leisure agro-tourism development promotes shopping, entertainment, and the quality of services for residents (3.64) (S) 10. Increased income from tourism operations (3.68) (S) 11. Recreational agro-tourism enhances local image (3.65) (S) 14. Recreational agro-tourism promotes the renewal and opening of the population's mindset (3.69) (S) 15. Residents have access to training in tourism vocational skills (3.63) (S) 19. The investment climate in the region has improved significantly (3.73) (S) 20. Effective development and protection of the region's natural environment (3.78) (S) 21. The environmental hygiene situation in the region is very satisfactory (3.76) (S)	8. Your basic standard of living has improved significantly (increase in income) (2.43) (W) 12. Recreational agro-tourism addresses the large surplus of rural workers (2.30) (W) 13. Seasonality of leisure agro-tourism employment is evident (2.42) (W) 18. Reduced access to public open space facilities by residents (2.39) (W) 22. The residents are more aware of environmental protection (2.31) (W) 27. The government's policy on compensation for the demolition and relocation of farmers' houses due to the development of tourism is very fair (2.37) (W) 30. The region's agro-tourism project is single and the characteristics are insufficient; should strengthen the construction of Agricultural tourism culture (2.36) (W) 33. Insufficient excavation of rural cultural (ethnic characteristics) connotation; leisure agricultural tourism should clarify the theme of Agricultural tourism and create Agricultural tourism characteristics (2.42) (W) 38. Tourism development has not been closely integrated with the construction of new socialist villages; the tourism environment has been improved (2.42) (W) 29. Transportation conditions have become constraints, and tourism transportation conditions

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	External Environment	
	Strengths (S)	**Weaknesses (W)**
Opportunities (O) 36. Increase advertising and publicity efforts (3.84) (O) 35. Improve the standard of tourism services (3.67) (O) 16. Increasing development of traditional cultural resources in the region (3.61) (O)	SO SO3 = S6, S10, S11, S14, O35, O36: Elevate service standards and foster community engagement to enhance visitor satisfaction. SO4 = S9, S21, S7, O36: Intensify promotional efforts to attract visitors and drive economic growth. SO5 = S15, S19, S20, O16: Develop and preserve traditional cultural and natural resources to support sustainable tourism.	should be vigorously improved (2.34) (W) WO WO4 = W8, W22, W38, O35: Elevate service quality to advance community development and promote sustainable tourism. WO5 = W18, W33, W30, O16: Leverage cultural resources to diversify and enrich the tourism experience. WO6 = W12, W13, W27, W29, O36: Expand advertising efforts to boost employment stability and support infrastructure development.
T	ST	WT
Threats (T) 23. Traffic and population are overcrowded and noisy (3.63) (T) 17. Conflicts between residents and outside operators such as tour operators (3.74) (T) 25. Strong government policy support for farmers' tourism operations (2.20) (T) 24. Strong governmental support in terms of funds and taxes for farmers to develop tourism business (2.39) (T) 26. The Government's policy on the rehabilitation of agroforestry is very fair and favorable (2.39) (T) 28. The distribution of benefits among the government, collectives, tourism companies, and residents is reasonable (2.38) (T) 29. Transportation conditions have become constraints, and tourism transportation conditions should be vigorously improved (2.34) (T) 30. The region's agro-tourism project is single and the characteristics are insufficient; should strengthen the construction of Agricultural tourism culture (2.36) (T)	ST4 = S7, S9, S6, S10, T17, T28, T24, T25: Encourage community participation to facilitate harmonious development and ensure fair distribution of tourism revenues. ST5 = S20, S21, S10, T23, T37, T26: Promote sustainable growth by strengthening environmental protection and resource optimization. ST6 = S15, S19, S11, S14, S6, T29, T30, T32: Enhance infrastructure and diversify tourism activities to elevate the overall visitor experience.	WT3 = W8, W13, W12, W29, W27, T25, T29, T23, T24, T28: Drive infrastructure enhancements to stimulate community economic development. WT4 = W30, W33, W18, T32, T30, T37: Expand tourism offerings and cultural resources to enhance visitor satisfaction and increase tourism appeal. WT5 = W38, W22, T17, T26: Strengthen ecological conservation and community harmony to foster a balanced development between tourism and environmental sustainability.

	External Environment	
	Strengths (S)	**Weaknesses (W)**
32. The region's agro-tourism project is single and the characteristics are insufficient; should strengthen the construction of Agricultural tourism culture (2.42) (T) 34. Tourism reception facilities are not perfect; tourism reception facilities should be improved (2.34) (T)		

Table 3 shows the TOWS matrix from the perspective of residents.

Agritourism supports community development and economic growth, but faces challenges like job seasonality and limited cultural engagement. Suggested strategies:

SO: Raise service standards, promote community involvement, and leverage advertising for growth.

WO: Improve infrastructure and service quality to stabilize employment and enrich experiences.

ST: Encourage fair benefit distribution and protect environmental resources for sustainable growth.

WT: Expand cultural activities and improve public spaces to balance tourism and community needs.

Table 4 TOWS Matrix for the Development of Xi'an Leisure Agriculture Tourism (Employees and Managers)

	External Environment	
	Strengths (S)	**Weaknesses (W)**
Internal Environment	6. Your reasons for engaging in recreational agritourism (S) 7. Are there any leisure agro-tourism associations around you, and what is the role of leisure agro-tourism associations? (S) 8. The nature of your tourism organization (S) 9. How satisfied are you with the public service facilities for leisure agritourism in Xi'an? (S) 10. What is your main job description? (S) 11. Do you think that Xi'an's leisure agritourism projects or products are diversified and rich at present? (S) 12. Xi'an leisure agriculture tourism has good quality in terms of service (S)	14. Which aspects of the leisure agritourism program do you think need the most further improvement? (W) 15. During your time in this job, what do you think are the main customer groups for leisure agritourism? (W) 18. What do you think is a problem that is often mentioned by customers in your work? (W) 26. In your opinion, under the current environment of government support and policy promulgation, what obstacles still exist in the development of leisure agricultural tourism? (W)

	External Environment	
	Strengths (S)	**Weaknesses (W)**
Opportunities (O)	SO	WO
13. What do you think is the most attractive factor for tourists in recreational agritourism? (O) 16. What do you think are the most important reasons that influence customers to choose leisure agritourism? (O) 17. What factors do you think increase consumer satisfaction? (O) 21. What training skills do you think are necessary to improve tourist satisfaction? (O) 23. What do you think is the importance of the policies enacted or formulated by the local government in the development of recreational agro-tourism in the region? (O)	SO6 = S6, S7, S12, O13, O16, O17: Optimize the tourism experience to align with customer preferences, enhancing overall satisfaction. SO7 = S8, S11, O21: Implement comprehensive staff training to elevate service quality and enrich visitor experiences. SO8 = S9, S10, O23: Strengthen public services and policy support to maintain industry-wide service standards.	WO7 = W14, W18, O16, O17, O23: Refine project design to improve customer satisfaction. WO8 = W15, W26, O13, O21, O23: Enhance training programs to provide an outstanding customer experience.
Threats (T)	ST	WT
19. Have you attended any training courses related to leisure and tourism services/management? (T) 20. Does the enterprise regularly organize related business knowledge, learning, and management skills training? (T) 22. Are you satisfied with the training currently provided by the company? (T) 24. Which policy measures or regulations enacted by the government do you think can promote the development of regional leisure agro-tourism? (T) 25. What policy measures do you think are currently positively contributing to leisure agritourism in your organization? (T)	ST7 = S7, S12, S9, S11, T19, T22, T20: Improve training quality and support ongoing employee development. ST8 = S10, S11, S8, S15, T24, T25: Increase policy support and government collaboration to foster sustainable growth.	WT6 = W14, W18, T19, T22: Enhance employee training to meet project improvement and service enhancement requirements. WT7 = W26, T20, T24: Promote structured, regular training to develop management capabilities and meet business needs. WT8 = W33, T25: Leverage government support to advance rural cultural development.

Table 4 shows the TOWS matrix from the perspective of employees and managers.

Strengths include motivated staff and high service quality, while weaknesses involve limited customer service and recurring complaints. Key strategies:

SO: Align services with customer needs, implement robust training, and strengthen public services.

WO: Enhance project designs and training to meet visitor expectations.

ST: Support ongoing staff development and increase government policy alignment.

WT: Regularize training and leverage government support to build local culture.

In summary, Xi'an's agricultural tourism sector can enhance visitor experiences, community engagement, and sustainability by building on strengths, addressing service gaps, and leveraging supportive policies.

Objective 3: The research results found the feasibility of the strategies for agricultural tourism in Xi'an.

The expert evaluations reveal strong support for various strategies, indicating high feasibility for many initiatives aimed at enhancing agricultural tourism in Xi'an. Experts rated strategies across the categories of Strengths-Opportunities (SO), Weaknesses-Opportunities (WO), Strengths-Threats (ST), and Weaknesses-Threats (WT) based on their perceived effectiveness and resource alignment.

Table 5 Expert Discussion Results

Strategy	Project	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	Expert 6	Expert 7	Expert 8	Expert 9	Summary
SO	SO1: Integrate advanced safety facilities and service advantages to enhance safety and service quality in Xi'an's leisure agricultural tourism.	1	1	1	1		1	1			6
	SO2: Improve visitor convenience by combining high-quality roads, local agricultural entertainment, and clear signage.		1			1		1			3
	SO3: Elevate service standards and community involvement to enhance visitor satisfaction.	1	1	1		1	1				5
	SO4: Increase promotional efforts to attract tourists and drive economic growth.		1		1		1	1			4
	SO5: Develop and preserve traditional cultural and natural resources to support sustainable tourism.	1			1	1		1	1		5
	SO6: Optimize the tourism experience to align with customer preferences, enhancing customer satisfaction.	1	1	1	1	1	1	1	1	1	9
	SO7: Implement staff training to raise service standards and enrich the visitor experience.		1	1		1		1	1	1	6
	SO8: Enhance public services and policy support to ensure industry-wide standards.		1			1		1			3
WO	WO1: Improve service quality and environmental conditions to meet visitor expectations for cleanliness and comfort.	1	1	1	1	1	1	1	1		8
	WO2: Diversify tourism offerings and upgrade infrastructure to broaden the visitor experience and improve access to information.	1	1		1	1		1	1		6
	WO3: Develop cost-effective leisure agricultural tourism products to increase economic value.	1	1	1		1	1	1		1	7
	WO4: Raise service standards to support community development and sustainable tourism.		1	1		1	1	1			5
	WO5: Leverage cultural resources to enrich the tourism experience.		1		1		1				3
	WO6: Boost advertising to promote employment stability and support infrastructure development.		1			1		1	1		4
	WO7: Refine project design to enhance customer satisfaction.	1	1	1		1	1				5
	WO8: Improve training programs to deliver an exceptional customer experience.	1	1	1	1		1	1	1		7

Citation
Jing, Y., Kheovichai, K., & Chantasorn, N. (2025). Strategies for the Development of Agriculture Tourism in Xi'an. International Journal of Sociologies and Anthropologies Science Reviews, 5 (3), 597-612; DOI: **https://doi.org/10.60027/ijsasr.2025.6005**

Strategy	Project	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	Expert 6	Expert 7	Expert 8	Expert 9	Summary
ST	ST1: Improve dining service quality and price satisfaction to build visitor confidence in the overall experience.	1	1	1	1		1	1	1	1	8
	ST2: Strengthen safety facilities and environmental protections to increase visitor trust and foster positive recommendations.	1	1	1	1	1	1	1	1	1	9
	ST3: Enhance ecological tourism experiences and infrastructure to improve the diversity and comfort of visitor experiences.	1	1	1	1		1	1	1		7
	ST4: Promote community involvement to support harmonious development and equitable revenue distribution.		1	1	1		1				4
	ST5: Foster sustainable development through environmental protection and resource optimization.	1	1		1		1		1		5
	ST6: Strengthen infrastructure and diversify tourism offerings to elevate the visitor experience.		1	1		1	1	1	1		6
	ST7: Improve training quality to support continuous employee development.		1					1	1		3
	ST8: Increase policy support and government collaboration to promote sustainable growth.	1			1		1		1		4
WT	WT1: Enhance cleanliness standards and service environment to build visitor trust and satisfaction.	1	1	1		1	1	1	1		7
	WT2: Optimize entertainment and cultural experiences to increase visitor engagement and encourage recommendations.		1	1	1		1		1	1	6
	WT3: Advance infrastructure improvements to promote community economic development.	1	1	1	1		1	1	1	1	8
	WT4: Broaden tourism offerings and cultural resources to enhance visitor appeal and experience.	1		1	1		1	1	1		6
	WT5: Strengthen ecological conservation and community harmony to ensure balanced tourism and environmental development.		1		1	1			1		4
	WT6: Improve employee training quality to meet project improvement and service enhancement needs.		1	1	1	1		1		1	6
	WT7: Promote structured, regular training to support management development and meet business needs.	1	1	1	1	1	1	1	1	1	9
	WT8: Utilize government support to drive rural cultural development.		1				1		1		3

Table 5 presents the TOWS matrix evaluation of feasible strategies for agricultural tourism in Xi'an. Expert assessments strongly support strategies focused on enhancing safety, service quality, community involvement, and sustainability, as these align well with Xi'an's resources and tourism potential.

Key findings include:

SO Strategies: High feasibility was noted for integrating safety facilities and improving service quality (SO1), aligning tourism experiences with visitor preferences (SO6), and enhancing cultural preservation (SO5). Experts also support regular training (SO7) to maintain high service standards.

ST Strategies: To mitigate threats, strategies like improving dining quality and affordability (ST1), strengthening safety and environmental protections (ST2), and optimizing infrastructure for ecological experiences (ST3) were rated as achievable and essential for fostering visitor trust and satisfaction.

WO Strategies: Enhancing visitor comfort and cleanliness (WO1), expanding tourism offerings (WO2), and developing cost-effective products (WO3) were seen as feasible, with strong support for refining projects based on visitor feedback (WO7) and optimizing training programs (WO8) to improve the overall visitor experience.

WT Strategies: Addressing weaknesses, experts emphasized the importance of raising cleanliness standards (WT1) and implementing structured training for management development (WT7) to sustain service quality and support growth.

In summary, strategies centered on safety, service quality, sustainable tourism, and training are highly feasible and align well with stakeholder support, making them priority areas for developing Xi'an's agricultural tourism sector.

Table 6 Summary of Strategy Implementation for Agritourism Development

Strategy Type	Strategy	Description
SO Strategies	SO1	Integrate advanced safety facilities and service advantages to improve safety and service quality in Xi'an's leisure agricultural tourism.
	SO3	Enhance service standards and community involvement to increase visitor satisfaction.
	SO5	Develop and preserve traditional cultural and natural resources to promote sustainable tourism.
	SO6	Optimize the tourism experience to align with customer preferences, thereby improving overall satisfaction.
	SO7	Implement staff training to elevate service quality and enrich the visitor experience.
ST Strategies	ST1	Improve the quality of dining services and price satisfaction to boost visitor confidence in the consumption experience.
	ST2	Strengthen safety facilities and environmental protections to increase visitor trust and encourage positive recommendations.
	ST3	Optimize ecological tourism experiences and infrastructure to enhance the diversity and comfort of visitor experiences.
	ST5	Promote sustainable development by enhancing environmental protection and resource optimization.
	ST6	Strengthen infrastructure and diversify tourism offerings to improve the overall visitor experience.
WO Strategies	WO1	Improve service quality and environmental conditions to meet visitor expectations for cleanliness and comfort.
	WO2	Diversify tourism offerings and upgrade infrastructure to broaden the visitor experience and improve access to information.
	WO3	Develop cost-effective leisure agricultural tourism products to increase economic value.
	WO4	Elevate service standards to support community development and sustainable tourism.
	WO7	Refine project designs to improve customer satisfaction.
	WO8	Enhance training programs to deliver an outstanding customer experience.

Strategy Type	Strategy	Description
WT Strategies	WT1	Enhance cleanliness standards and the service environment to increase visitor trust and satisfaction.
	WT2	Optimize entertainment options and cultural experiences to boost visitor engagement and encourage positive recommendations.
	WT3	Advance infrastructure improvements to promote community economic development.
	WT4	Broaden tourism offerings and cultural resources to enhance visitor appeal and experiences.
	WT6	Improve employee training quality to support project improvements and service enhancements.
	WT7	Promote structured and regular training to strengthen management capabilities and meet business needs.

Discussion

1. Current State of Agritourism in Xi'an

This study finds that Xi'an's agritourism mainly attracts visitors aged 30-50, including professionals and retirees, who typically travel with family or in groups for short stays of two to three days. This aligns with Barbieri's (2009) findings that agritourism appeals to those interested in nature and cultural experiences. Although satisfaction is high, repeat visits are low, likely due to limited cultural depth and "homogenization fatigue" from artificial attractions, which reduce visitor retention. Improving service quality and adding authentic cultural experiences could help address this. Overall, while Xi'an benefits from strong natural resources and infrastructure, further improvements in service quality, cultural offerings, and experience variety are needed to boost visitor satisfaction and repeat visits.

2. Agritourism Development Strategies for Xi'an

This study proposes strategies (SO, ST, WO, WT) to enhance Xi'an's agritourism, aligning with previous research on ecological protection, visitor needs, and infrastructure, while reflecting Xi'an's unique resources and policies. Key strategies emphasize high service standards, environmental quality, and cultural preservation, appealing especially to elderly visitors, consistent with Karali et al. (2024). Recommendations to use visitor feedback to enrich cultural presentation diverge from Barbieri's (2009) caution against over-commercialization; Xi'an's rich cultural resources allow it to maintain authenticity. Digital promotion is highlighted as a valuable tool for enhancing Xi'an's appeal, supporting findings on the effectiveness of online marketing. Coordinated regional development and cross-sector collaboration, as suggested by Barbieri (2009), are also emphasized. In conclusion, a diversified approach combining ecological tourism, cultural enrichment, and digital marketing can support sustainable and authentic growth in Xi'an's agritourism.

Conclusion

Agritourism in Xi'an plays a vital role in promoting economic growth, cultural preservation, and environmental sustainability. However, the sector faces challenges, including inadequate infrastructure, limited cultural offerings, and low visitor engagement. To address these issues, the study proposes strategies to enhance visitor experiences through diversified cultural activities, infrastructure improvements, and sustainable tourism practices. Integrating Xi'an's cultural heritage with tourism, promoting green tourism, and leveraging visitor feedback will further enhance tourism value while supporting community development. The feasibility assessment confirms the strategies' viability, though challenges like funding and resource integration remain, requiring government-business collaboration for effective implementation.

Expert discussions emphasized leveraging local cultural resources, promoting "community tourism," and improving digital skills among tourism practitioners. Focus groups highlighted that infrastructure upgrades and interactive cultural activities significantly improved visitor satisfaction and engagement. Agritourism has generated economic benefits through job creation, but faces challenges

with seasonal employment. Policy support has improved tourism facilities, although gaps remain in remote areas. Moving forward, innovation in digital services, such as smart management systems and virtual technologies, will enhance visitor autonomy and satisfaction. Developing culturally distinctive projects and reinvesting tourism revenues into communities will ensure sustainable long-term development.

Recommendation

1. Recommendations for the Application of Research Findings

The agritourism development strategies proposed in this study offer actionable guidance for optimizing the utilization of tourism resources in Xi'an, enhancing visitor satisfaction, and promoting sustainable economic growth. The following recommendations aim to assist the Xi'an Tourism Bureau, tourism companies, and destination managers in effectively applying these findings:

1. When implementing the research findings, the Xi'an Tourism Bureau, tourism companies, and destination managers should holistically consider factors such as environmental conservation, infrastructure development, cultural transmission, and visitor needs. Such an integrated approach is essential for the sustainable development of the tourism industry and the enhancement of its overall competitiveness and attractiveness.

2. In the process of expanding tourism resources, particular attention must be given to preserving environmental sustainability and the natural landscapes of scenic areas. For a city like Xi'an, renowned for its natural beauty and air quality, any form of development should prioritize environmental integrity over economic gains.

3. To ensure the effective implementation of these strategic recommendations, a monitoring and evaluation framework should be established. Regular assessments of each strategy's effectiveness, alongside adjustments based on feedback and data, would help ensure both feasibility and impact.

2. Recommendations for Future Research

The researcher proposes the following four recommendations for future studies:

1. Future studies on agritourism development in Xi'an could consider broadening the survey scope and increasing the sample size to enhance representativeness. Additionally, exploring other perspectives, such as sports tourism strategies, tourism policy recommendations, and leisure agritourism development models, could provide a more comprehensive understanding of the topic.

2. Where feasible, future research should conduct empirical studies to observe the real-world implementation of proposed strategies, policies, or models. Such studies would allow for further refinement and adjustments based on conditions encountered during actual application.

3. Future studies may also adopt interdisciplinary research approaches, integrating insights from cultural anthropology, environmental science, and economics to explore Xi'an's tourism sustainability in greater depth. For instance, research could examine how to better incorporate local culture into tourism product design from a cultural perspective or assess the long-term ecological impacts of tourism development through an environmental science lens.

4. Future research could analyze the influence of global tourism trends on Xi'an, including post-pandemic tourism recovery, the rise of eco-tourism and green tourism, and shifts in the international tourism market that might impact adjustments to Xi'an's agritourism strategies. Such research would provide a robust foundation for Xi'an to develop tourism policies with an international focus.

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