

-RESEARCH ARTICLE-

ASSESSING THE ECONOMIC BENEFITS OF SUSTAINABLE TOURISM IN NORTH CHINA: FOCUS ON DESTINATION TRUST AND COMMUNITY DEVELOPMENT

Fan Jie

Ph.D candidate, School of Business and Economics,
Universiti Putra Malaysia, Selangor, Malaysia
ORCID: <https://orcid.org/0000-0003-1269-8103>
Email: xka0807@gmail.com

Nawal Hanim Abdullah*

Senior Lecturer, School of Business and Economics,
Universiti Putra Malaysia, Selangor, Malaysia
ORCID: <https://orcid.org/0000-0002-8585-4288>
Email: nawal@upm.edu.my

Syamsul Herman Mohammad Afandi

Associate Professor, School of Business and Economics,
Universiti Putra Malaysia, Selangor, Malaysia
ORCID: <https://orcid.org/0000-0003-3042-6902>
Email: syamsulhma@upm.edu.my

Nitanan Koshy Matthew

Senior Lecturer, Faculty of Forestry and Environment,
Universiti Putra Malaysia, Selangor, Malaysia
ORCID: <https://orcid.org/0000-0002-2532-9713>
Email: nitanankoshy@upm.edu.my

—Abstract—

The objective of this study is to assess the economic benefits of sustainable tourism in North China, with a particular focus on the roles of destination trust and community development. The study further investigates the contribution of government support in enhancing the tourism sector. A quantitative cross-sectional design is employed, utilising the PLS-SEM (Partial Least Squares Structural Equation Modelling) technique

Citation (APA): Jie, F; Abdullah, N, H; Afandi, S, H, M and Matthew, N, K. (2024). Assessing the Economic Benefits of Sustainable Tourism in North China: Focus on Destination Trust and Community Development. *International Journal of Economics and Finance Studies*, 16(04), 74-103. doi: 10.34109/ijefs.202416404

for data analysis. The sample comprises 356 participants, including tourists, local residents, and stakeholders involved in the study. The findings suggest that community development and destination trust significantly contribute to the growth of tourism in North China. Enhanced infrastructure, social services, and local engagement improve economic outcomes by increasing the competitiveness of destinations. Trust is found to generate economic benefits through tourist loyalty, repeat visits, and positive word-of-mouth. Furthermore, sustainable tourism practices indirectly foster economic growth by strengthening both community and destination trust. This research has implications for policymakers, tourism professionals, and local communities. It proposes an integrated strategy for tourism development that maximises economic benefits through the promotion of community engagement, trust, and sustainability. The study also highlights that government support plays a moderating role in community development, particularly when aligned with local initiatives. It advocates for the strategic management of government intervention to build trust. The findings support a collaborative approach to tourism governance, one that balances economic objectives, social inclusion, and environmental sustainability, thereby ensuring the long-term success of North China's tourism sector.

Keywords: Sustainable Tourism, Community Development, Economic Benefits, Destination Trust, Government Support, North China.

INTRODUCTION

Sustainable tourism in North China aims to strike a balance between economic growth and environmental conservation, with a strong emphasis on sustainability. According to the World Tourism Organisation (2023), 70% of tourists now prefer eco- and socially responsible destinations. North China, renowned for its rich history, culture, and natural beauty, attracts both domestic and international visitors. In 2022, tourism in the region saw a 15% increase, raising concerns about resource sustainability and the economic benefits for local communities, as noted by the China Tourism Academy. This study explores how community development, destination trust, and government support influence the economic benefits of sustainable tourism in North China. By examining the impact of these factors on economic outcomes, the research aims to assist policymakers, tourism professionals, and community stakeholders in optimising the economic potential and sustainability of tourism in the region (Bhat et al., 2020; Graci, 2020 ; Purnomo et al., 2020).

The economic benefits of sustainable tourism are pivotal for North China, a rapidly developing tourism destination with both opportunities and challenges. The region's cultural heritage, historical sites, and natural beauty are key attractions driving tourism. For instance, the Great Wall of China in the northern part of the country draws over 10 million visitors annually, significantly boosting the local economy (Ministry of Culture and Tourism, 2023). This study investigates how destination trust and community development—critical drivers of sustainable tourism—can enhance North China's

tourism economy. By examining the role these factors play in promoting sustainable outcomes, the research aims to identify strategies for boosting the region's tourism sector while mitigating the negative impacts of rapid growth (Kummitha, 2020; Rahmawati et al., 2023; Tichaawa et al., 2023).

This study is of significant importance as North China integrates sustainable tourism into its broader economic development strategy. With the sustainable tourism market projected to reach USD 335 billion by 2027 (Market Research Future, 2023), understanding the economic drivers behind this sector is vital. The research examines how sustainable tourism practices, community development, and destination trust contribute to economic growth. Given the evolving landscape of global tourism, shaped by environmental concerns, shifting consumer preferences, and the lasting impacts of the COVID-19 pandemic, comprehending the factors that drive economic success in sustainable tourism has become increasingly critical. This study provides valuable insights for policy formulation, tourism development strategies, and the creation of a more sustainable and inclusive tourism sector in North China (Pagliara et al., 2021; Prayitno et al., 2024; Than et al., 2020).

Despite the growing body of literature on sustainable tourism, there is limited understanding of how community development and destination trust specifically contribute to the economy of North China. While the roles of environmental management practices, tourist satisfaction, and the local economic impacts of sustainable tourism have been extensively studied, trust and community engagement as mediators remain underexplored. Moreover, research on the cultural, economic, and policy environments of emerging tourism destinations like North China is sparse, with most studies concentrating on Western or well-established destinations. This study posits that, in the unique context of North China, community development and destination trust can significantly enhance the economic benefits of sustainable tourism (Wani et al., 2024).

While government support for sustainable tourism is recognised, the interaction between government interventions, community initiatives, and destination trust in shaping economic benefits remains unclear. Most studies focus separately on government policies or community and trust factors without exploring potential synergies or conflicts. This study addresses this gap by examining government support as a moderator in sustainable tourism development in North China. With China's 2022 "Green Tourism" goal aiming to reduce tourism's carbon footprint by 30% by 2030, government involvement is crucial for balancing environmental sustainability with economic growth. This research highlights the role of government policy, community development, and destination trust in driving the economic outcomes of sustainable tourism in North China (Dogra et al., 2022).

North China, with its mix of traditional culture and modern development, stands to benefit from sustainable tourism, community development, destination trust, and

government support (Chan, 2023; Streimikiene et al., 2021). While the importance of sustainability in tourism is widely acknowledged, how it translates into economic gains remains unclear, especially in emerging destinations with diverse contexts and challenges. This study explores key economic drivers of sustainable tourism—visitor enjoyment, return visits, local business growth, and community empowerment. It offers practical advice and strategies for policymakers, tourism professionals, and community leaders to foster a resilient and inclusive tourism economy, contributing to long-term growth and sustainability in North China (Li et al., 2021).

Community development and destination trust significantly influence the economic benefits of sustainable tourism in North China, with government support acting as a moderator. The study reveals that community development empowers local communities through education, training, infrastructure improvements, and the promotion of cultural and historical assets, contributing to a more sustainable and economically vibrant tourism sector. It also highlights that consistent service, safety assurances, and effective communication enhance tourists' trust in destinations. Additionally, the study shows that government policies must align with local needs and sustainable tourism goals to foster community trust and engagement. These findings suggest that successful sustainable tourism development requires appropriate strategies and a supportive legislative framework to encourage stakeholder participation (Achmad et al., 2023; Sarfraz et al., 2022).

This study provides a comprehensive framework for sustainable tourism development in North China, offering inclusive, economically resilient growth strategies (Nugraha et al., 2022). It stresses the need for a collaborative approach that balances economic growth with social and environmental responsibilities. Tourism in North China must support the local economy while preserving the region's unique cultural and environmental assets. The study highlights that sustainable practices, community involvement, trust-building, and strategic government support are essential for a viable, equitable, and sustainable tourism industry. Addressing North China's diverse tourism challenges and opportunities holistically is crucial for ensuring long-term economic growth and sustainability.

LITERATURE REVIEW

Recent sustainable tourism literature highlights key success factors in North China, where economic growth and environmental preservation are crucial. Dangi and Jamal (2020) define sustainable tourism as encompassing environmental, economic, social, and cultural sustainability. A recent study emphasizes that sustainable tourism is vital for both economic and environmental sustainability. Wang et al. (2023) note that eco-friendly hotels, waste management, and sustainable transport alternatives conserve resources, enhancing tourist satisfaction and loyalty, which in turn boosts economic outcomes. This holistic approach maximises economic benefits without compromising

cultural and environmental values (Nugraha et al., 2022). Community engagement is increasingly recognised as essential for sustainable tourism planning and execution. Prioritising community development ensures a fairer distribution of economic rewards, increasing social fairness and reducing tourism-related conflicts (Li et al., 2021). Studies show that community-based tourism initiatives that empower local communities and involve them in decision-making foster ownership and stewardship, making tourism more sustainable. Entrepreneur training and infrastructure investments build socio-economic resilience, ensuring tourism growth aligns with community goals and needs (Sarfraz et al., 2022; Streimikiene et al., 2021). In North China, such investments enhance economic resilience and social cohesion (Liu & Li, 2022). Promoting local ownership and responsibility is crucial for the sustainability of tourist destinations.

Recent research highlights the importance of destination trust in sustainable tourism. Good service, safety, and effective communication with tourists are key to building destination trust (Huang et al., 2023). Studies show that destination trust significantly affects tourists' choice of destination, stay length, and likelihood of return visits. Zhang and Chen (2022) found that North China's health and safety communication during the COVID-19 pandemic boosted tourism and extended stays. Trust is essential for attracting and retaining visitors, with long-term economic benefits. As tourists increasingly seek sustainable and socially responsible destinations, trust plays a critical role in sustainable tourism (Achmad et al., 2023). Sustainable tourism also requires government oversight, financial incentives, and infrastructure (Smith & Jones, 2022). Studies indicate that effective government policies are essential for sustainable tourism development. Wang et al. (2023) found that tax breaks for eco-friendly businesses, subsidies for sustainable infrastructure, and stringent environmental regulations have promoted sustainable tourism in North China. To protect ecological and cultural assets, sustainable tourism necessitates government funding, logistical support, and regulatory standards. Without proper regulation, rapid tourism development could damage destinations' ecology and culture.

Literature shows that sustainable tourism development benefits the economy by boosting revenue, jobs, and local businesses (Garcia & Martinez, 2022). As a major industry in North China, sustainable tourism is becoming a key economic development strategy. Studies reveal that sustainable tourism practices offer long-term economic advantages over conventional models. Roberts and Brown (2021) found that North Chinese destinations promoting local culture, conserving natural resources, and engaging communities experienced higher economic growth and resilience during downturns. Sustainable tourism reduces economic volatility while increasing benefits (Li et al., 2021; Pagliara et al., 2021; Streimikiene et al., 2021). Recent research also indicates that sustainable tourism, community development, destination trust, and government support contribute to economic growth. Kim et al. (2024) highlight these factors' impact on sustainable tourism. Tourism that is environmentally and socially

responsible increases site credibility, visitation, and revenue. Local stakeholder involvement in planning fosters ownership, responsibility, and sustainability, enhancing trust and profitability.

Li et al. (2021) found that North Chinese destinations with sustainable practices, community engagement, trust-building, and government support were most profitable. Integrative tourism supports the economy, society, and environment (Sarfraz et al., 2022). The research identifies several barriers to sustainable tourism in North China, despite its benefits. Local stakeholders face challenges such as a lack of government support, funding, and awareness of sustainable practices (Garcia & Martinez, 2023). The absence of organisation, financial resources, and community support has led to the failure of many sustainable tourism ventures (Zhao et al., 2023). Sharing resources, expertise, and promoting sustainable growth are key to overcoming these barriers and enhancing tourism benefits.

Hypothesis Development

Recent research highlights the key factors driving the success of sustainable tourism in North China. The findings underscore the importance of a tourism development strategy that strikes a balance between economic growth, environmental conservation, community development, and destination trust. Ecotourism, community engagement, trust-building, and strategic government support are identified as critical components for enhancing economic growth while preserving local culture and ecosystems. These findings suggest that policymakers, tourism practitioners, and community stakeholders must collaborate to create sustainable tourism models that align with economic, social, and environmental objectives (Chan, 2023; Li et al., 2021; Pagliara et al., 2021; Purnomo et al., 2020; Rahmawati et al., 2023; Streimikiene et al., 2021; Wani et al., 2024). Sustainability promotes economic growth, community development, destination trust, and government support for tourism. Recent evidence indicates that these factors collectively enhance North China's tourism economy. Community development and sustainable tourism practices, supported by government initiatives, contribute to economic growth, strengthen destination trust, and drive prosperity. By examining the economic success factors of sustainable tourism, policymakers and practitioners can refine tourism expansion strategies. Building on the literature reviewed, the following hypotheses are proposed:

H1: *Community Development (CD) has a positive direct effect on Destination Trust (DT).*

H2: *Community Development (CD) has a positive direct effect on Economic Benefits (EB).*

H3: *Destination Trust (DT) has a positive direct effect on Economic Benefits (EB).*

H4: *Government Support (GS) has a positive direct effect on Economic Benefits (EB).*

H5: *Sustainable Tourism Practices (STP) have a positive direct effect on Community Development (CD).*

H6: *Sustainable Tourism Practices (STP) have a positive direct effect on Destination Trust (DT).*

H7: *Government Support (GS) positively moderates the relationship between Community Development (CD) and Economic Benefits (EB).*

H8: *Government Support (GS) positively moderates the relationship between Destination Trust (DT) and Economic Benefits (EB).*

H9: *Government Support (GS) positively moderates the relationship between Sustainable Tourism Practices (STP) and Economic Benefits (EB).*

RESEARCH METHODOLOGY

Research Design

This quantitative study highlights that sustainable tourism in North China is profitable due to destination trust and community development. The use of quantitative research is justified by its ability to evaluate variables and generalise conclusions (Creswell, 1994). PLS-SEM is well-suited for studying complex construct interactions in formative measurement models or small to medium samples. This study examines the intricate relationships between sustainable tourism, destination trust, community development, and economic benefits. PLS-SEM is appropriate for latent constructs and non-normal data. As a cross-sectional study of sustainable tourism attitudes and outcomes in North China, this method is ideal for research focused on the strength and direction of changing linkages, rather than tracking changes over time (Bryman & Bell, 2015). By providing insights into North China's tourism prospects and challenges, this study contributes to the literature on sustainable tourism, community development, and economic growth in the context of global sustainable development.

Data Collection and Sampling

A carefully selected sample of North Chinese residents, business owners, and tourists was surveyed. For reliable results using PLS-SEM, 200 respondents are required, and 356 out of 400 participants were chosen (Sarstedt et al., 2017). Quantitative survey data analysis reveals patterns and relationships (Fowler, 2014). To ensure a representative sample, the survey was distributed both online and offline, accommodating diverse digital access. The questionnaire, based on literature-validated scales, measures sustainable tourism, destination trust, community development, and economic benefits. Random and snowball sampling methods were employed to gather data from North Chinese sustainable tourism experts. Random sampling reduces selection bias and enhances generalisability (Saunders, Lewis, & Thornhill, 2016), while snowball sampling helps reach hard-to-access local tourists. This dual approach provides comprehensive data, representing the community for sustainable tourism economic

assessments. Simple random sampling improves external validity by ensuring a representative sample (Bryman & Bell, 2015), while snowball sampling supports tourism professionals and sustainable tourism practitioners in North China. Given the complexity of tourism ecosystems, multiple perspectives are necessary, justifying this approach. The complete data collected will validate the study's goals and support PLS-SEM analysis.

Variables and Measurement

The economic benefits of sustainable tourism in North China are quantitatively examined, with a focus on destination trust, community development, and government support as moderating factors. Sustainable Tourism Practices (STP) are evaluated through eco-friendly, cultural, and responsible tourism policies. To address both current and future needs, tourism development must adhere to these guidelines. Sustainable tourism practices encompass waste management, energy efficiency, cultural preservation (such as the protection of historical sites and promotion of local traditions), and responsible tourism behaviours, including eco-friendly activities and carbon reduction. These practices are measured using a 5-point Likert scale, incorporating items from Bramwell and Lane (2011), such as "Tourism activities in this area prioritise environmental conservation" and "Efforts are made to preserve the cultural heritage of this destination." North China can utilise these scales to assess its sustainable tourism initiatives.

Another key variable in this study is DT, which measures both tourists' and locals' confidence in the management and development of tourism. Trust in tourism authorities and service providers fosters repeat visits, goodwill, and loyalty. A 5-point Likert scale adapted from Nunkoo and Ramkissoon (2012) gauges destination trust by assessing the reliability and honesty of tourism services. Items such as "I trust the local tourism authorities to manage the destination responsibly" and "The information provided about this destination is accurate and reliable" are included. This scale effectively captures the nuanced perceptions of trust within tourism contexts, which is essential for understanding the impact of trust on community development and economic benefits.

CD arises from tourism's impact on infrastructure, education, healthcare, and social cohesion. It reflects how tourism enhances lives, economies, public services, and community spirit. Su and Wall (2014) utilise a 5-point Likert scale to assess statements such as "Tourism has led to significant improvements in local infrastructure (e.g., roads, public facilities)" and "The tourism industry has contributed to better educational opportunities for residents." Given its multidimensional nature, this scale is well-suited for evaluating the benefits of tourism community development. These dimensions are examined to understand how tourism fosters improvements in community outcomes and regional economic vitality.

The dependent variable in this study is economic benefits. Tourism drives local business growth, resident employment, and stakeholder ROI. The financial benefits of tourism are measured using a 5-point Likert scale developed by [Kim, Uysal, and Sirgy \(2018\)](#), with items such as "Tourism has significantly increased the revenue of local businesses" and "Tourism has created more job opportunities for local residents." A customised scale is also used to measure the economic impact of tourism in North China. Economic benefits are central to assessing the success of sustainable tourism initiatives, as they provide a link between the practices and perceptions explored in this study and tangible financial outcomes that support the region's economic development objectives. The study highlights the role of local and national sustainable tourism, with a focus on moderate GS. Financial incentives, regulations, infrastructure, and policy interventions are identified as key factors in enhancing tourism in North China. Statements such as "The government provides financial incentives for sustainable tourism practices" and "Government policies strongly support the development of sustainable tourism" are evaluated using a 5-point Likert scale. This moderator variable allows the study to investigate how government support influences sustainable tourism, destination trust, community development, and economic benefits. The study also examines the interaction effects to assess the conditions under which sustainable tourism contributes to economic growth.

The study variables are measured using literature-validated scales to ensure reliability and validity. By carefully selecting scales for sustainable tourism practices, destination trust, community development, economic benefits, and government support, the research objectives are met, enabling the assessment of North China's sustainable tourism economic impacts. The operationalisation of these variables facilitates the exploration of the complex relationships between tourism practices, community outcomes, and economic development, thus advancing sustainable tourism. Additionally, the regulatory effect of government support expands tourism intervention by regulating Sustainable Tourism Practices, Community Development, and Destination Trust. Government policies that promote local development or community-driven initiatives can enhance destination credibility and sustainability. Investments in community infrastructure, services, and participation can indirectly foster sustainable tourism and destination trust. By focusing on both direct and indirect paths, the study simplifies and applies the method, maximising the influence of government support.

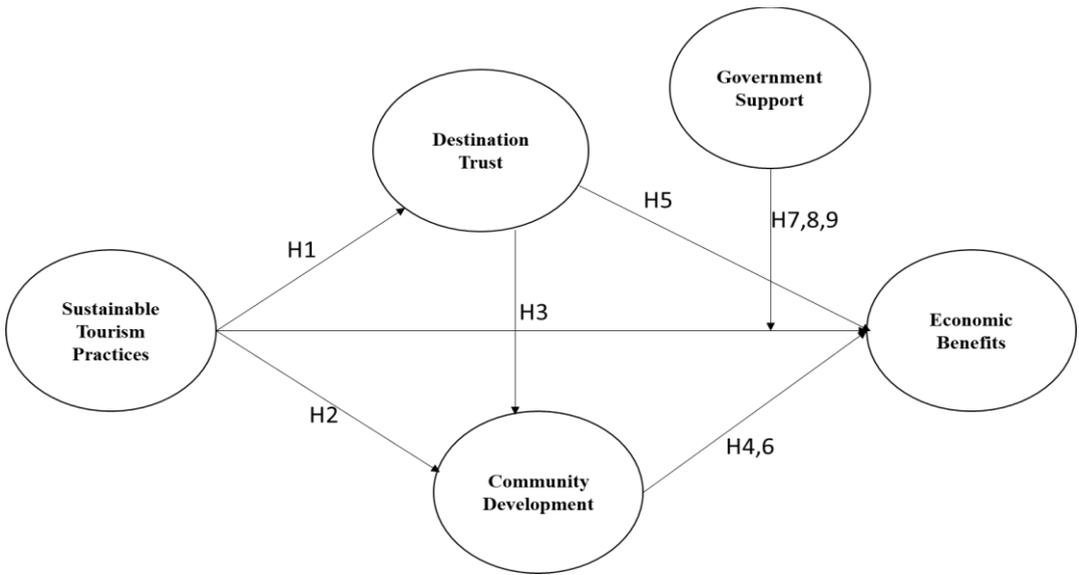


Figure 1: Research Framework

This study employs PLS-SEM due to its ability to handle complex models with multiple constructs and indicators, as well as non-normal data distributions. The analysis consists of both measurement model and structural model evaluations. In the measurement model assessment, factor loadings, AVE, and CR are used to determine convergent validity (Sarstedt et al., 2017). Discriminant validity is assessed using the Fornell-Larcker criterion (Fornell & Larcker, 1981) to ensure the distinctiveness of the constructs.

DATA ANALYSIS

Demographic data from this study provide insights into respondents' perspectives on sustainable tourism in Northern China, as presented in Table 1. Over a third of respondents are aged between 26 and 35, with younger professionals and new families generally more receptive to sustainable practices due to heightened awareness and a preference for responsible consumption. Students and early-career professionals tend to be more environmentally conscious, although their travel decisions may be influenced by budget constraints. Nearly 25% of the sample, aged between 36 and 45, may possess greater financial resources and a strong interest in enhancing their travel experiences to benefit the environment and local communities. Participation in tourism is lower among those aged 46-55 and 56+, possibly due to health, lifestyle, or concerns regarding travel and sustainability. The study's sample is nearly balanced in terms of gender, with a slight male predominance, which is significant for understanding the diversity of views on sustainable tourism practices. A substantial proportion of respondents hold bachelor's degrees or higher, indicating that individuals with higher levels of education are more likely to be environmentally conscious. Many respondents, with backgrounds

in tourism or business, are likely to have informed opinions on the subject. The age, gender, education, and professional engagement of the respondents may influence their perspectives on sustainable tourism in Northern China.

Table 1: Demographic Statistics

Demographic	Category	Frequency	Percentage (%)
Age	18-25 Years	80	22.47
	26-35 Years	119	33.43
	36-45 Years	88	24.72
	46-55 Years	53	14.89
	56 Years and Above	16	4.49
Gender	Female	163	45.79
	Male	181	50.84
	Prefer Not to Say	12	3.37
Education Level	Associate Degree	62	17.42
	Bachelor Degree	136	38.2
	Doctorate	26	7.3
	High School	33	9.27
	Master Degree	89	25
	Other	10	2.81
	Occupation	Business Owner	51
	Government Official	39	10.96
	Local Resident	101	28.37
	Other	21	5.9
	Tourism Industry Professional	76	21.35
	Tourist	68	19.1

Table 2 provides a comprehensive assessment of the reliability and validity of the study's constructs, ensuring the robustness of the measurement model in evaluating the economic benefits of sustainable tourism in Northern China. The high Cronbach's Alpha values, ranging from 0.800 to 0.914, demonstrate strong internal consistency across all constructs, indicating that they measure the same underlying concept. The STP construct exhibits the highest consistency, with a Cronbach's Alpha of 0.914. Composite reliability values, ranging from 0.869 to 0.940, further confirm the constructs' high reliability, ensuring that the measures are error-free. The study's robust reliability scores are crucial for accurately reflecting respondents' views on sustainable tourism, destination trust, community development, economic benefits, and government support in Northern China.

All constructs in the study exceed the 0.50 threshold for AVE, indicating that the items effectively capture a significant proportion of each construct's variance, with AVE values ranging from 0.625 to 0.796. Convergent validity is thus established, confirming that the constructs measure the same underlying concept. The STP construct has an AVE of 0.796, signifying that its items explain 80% of its variance, which underscores its effectiveness in capturing sustainable tourism activities. With item loadings exceeding 0.80, the study demonstrates strong construct validity. These results affirm

that destination trust, community development, economic benefits, and government support are reliable indicators of sustainable tourism practices in Northern China and their associated economic implications. The thorough reliability and validity assessments significantly enhance the robustness of the study's conclusions, deepening the understanding of sustainable tourism's regional economic benefits.

Table 2: Reliability and Validity Analysis

	Community Development (CD)	Destination Trust (DT)	Economic Benefits (EB)	Government Support (GS)_	Sustainable Tourism Practices (STP)	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
CD1	0.832	0.546	0.612	0.517	0.542	0.810	0.875	0.638
CD2	0.876	0.525	0.679	0.616	0.547			
CD3	0.806	0.648	0.605	0.475	0.516			
CD4	0.666	0.339	0.432	0.434	0.364			
DT1	0.587	0.856	0.560	0.510	0.712	0.856	0.902	0.698
DT2	0.610	0.894	0.551	0.480	0.662			
DT3	0.422	0.764	0.407	0.275	0.464			
DT4	0.555	0.821	0.528	0.382	0.478			
EB1	0.568	0.520	0.760	0.479	0.491	0.800	0.869	0.625
EB2	0.485	0.375	0.717	0.437	0.404			
EB3	0.644	0.529	0.838	0.594	0.521			
EB4	0.622	0.517	0.840	0.680	0.496			
GS1	0.630	0.557	0.745	0.800	0.559	0.814	0.873	0.632
GS2	0.484	0.318	0.496	0.816	0.413			
GS3	0.362	0.253	0.368	0.735	0.336			
GS4	0.473	0.371	0.492	0.826	0.467			
STP1	0.539	0.584	0.524	0.503	0.867	0.914	0.940	0.796
STP2	0.583	0.649	0.530	0.571	0.897			
STP3	0.557	0.643	0.558	0.509	0.908			
STP4	0.549	0.639	0.553	0.491	0.895			

Table 3 shows the Fornell-Larcker Criterion, which evaluates the study's constructs' discriminant validity to ensure they measure separate concepts. The criterion requires that each construct's square root of the AVE exceed the highest correlation with any other construct in the model. Off-diagonal numbers show construct correlations, while diagonal values show the square root of the AVE for each construct in Table 3. The square root of the AVE for each concept is greater than its highest correlation with other components, proving discriminant validity. For example, the square root of the AVE for STP is 0.892, which is higher than its correlations with CD (0.625), DT (0.706), EB (0.607), and GS (0.581). Similarly, DT has a square root of the AVE of 0.835, which exceeds its highest correlation of 0.706 with Sustainable Tourism Practices. These findings demonstrate that each construct accurately measures its intended variables without significant overlap, thereby ensuring discriminant validity. Consequently, the study's constructs—Sustainable Tourism Practices, Destination Trust, Community

Development, Economic Benefits, and Government Support—are robust and free from measurement issues.

Table 3: Fornell-Larcker Criterion

	Community Development (CD)	Destination Trust (DT)	Economic Benefits (EB)	Government Support (GS)	Sustainable Tourism Practices (STP)
Community Development (CD)	0.799				
Destination Trust (DT)	0.658	0.835			
Economic Benefits (EB)	0.738	0.619	0.791		
Government Support (GS)	0.641	0.506	0.703	0.795	
Sustainable Tourism Practices (STP)	0.625	0.706	0.607	0.581	0.892

Table 4 presents the Heterotrait-Monotrait Ratio (HTMT), which is a rigorous method for testing discriminant validity through construct correlations. The HTMT ratio compares heterotrait-heteromethod and monotrait-heteromethod correlations to ensure that constructs are distinct from one another. A value below 0.85 is typically indicative of construct distinction and confirms discriminant validity. In this study, all HTMT ratios are below 0.85, validating the discriminant validity of the constructs. For instance, STP and DT have an HTMT ratio of 0.783, indicating a strong yet distinct relationship, suggesting that while the two constructs are related, they measure different aspects. Similarly, CD and EB exhibit an HTMT ratio of 0.601, further supporting their distinction within the model. These findings confirm that the relationships between constructs, such as the effects of sustainable tourism practices on community development and economic benefits, are valid and reflective of real-world dynamics in Northern China. The HTMT results provide strong support for the research model, demonstrating that the constructs are distinct and accurately measure the intended variables.

Table 4: Heterotrait-Monotrait Ratio (HTMT)

	Community Development (CD)	Destination Trust (DT)	Economic Benefits (EB)	Government Support (GS)	Sustainable Tourism Practices (STP)
Community Development (CD)					
Destination Trust (DT)	0.766				
Economic Benefits (EB)	0.601	0.735			
Government Support (GS)	0.751	0.546	0.803		
Sustainable Tourism Practices (STP)	0.717	0.783	0.707	0.642	

CD, DT, EB, GS, and STP are key factors influencing sustainable tourism economics. Table 5 shows that CD significantly impacts DT with a coefficient of 0.357, T-statistic of 7.423, and a P-value of 0.000, highlighting the positive effect of community development on destination trust. Additionally, CD directly influences EB with a coefficient of 0.377, T-statistic of 5.970, and a P-value of 0.000, indicating that community development boosts the economy by increasing tourism, jobs, and local business activity. This underscores the importance of community development for sustainable tourism's economic success. Table 5 shows that DT positively affects EB with a coefficient of 0.150, T-statistic of 2.750, and P-value of 0.006. Trusted destinations attract more tourists, leading to higher spending and economic growth. GS also has a significant impact on EB, with a coefficient of 0.348, T-statistic of 6.349, and P-value of 0.000.

Table 5: Direct Relationships (H1 to H4)

	Coefficients	Sample Mean	STDEV	T Stats.	P Values
Community Development (CD) -> Destination Trust (DT)	0.357	0.357	0.048	7.423	0.000
Community Development (CD) -> Economic Benefits (EB)	0.377	0.375	0.063	5.970	0.000
Destination Trust (DT) -> Economic Benefits (EB)	0.150	0.149	0.054	2.750	0.006
Government Support (GS) -> Economic Benefits (EB)	0.348	0.350	0.055	6.349	0.000
Sustainable Tourism Practices (STP) -> Community Development (CD)	0.625	0.626	0.050	12.562	0.000
Sustainable Tourism Practices (STP) -> Destination Trust (DT)	0.483	0.482	0.051	9.497	0.000
Sustainable Tourism Practices (STP) -> Economic Benefits (EB)	0.064	0.066	0.056	1.134	0.257

STP positively influences CD with a coefficient of 0.625, T-statistic of 12.562, and P-value of 0.000. This strong correlation suggests that sustainable tourism benefits local communities by creating jobs, preserving culture, and improving quality of life. STP also significantly affects DT with a coefficient of 0.483, T-statistic of 9.497, and P-value of 0.000, indicating that sustainable tourism practices enhance trust among tourists and stakeholders. These practices demonstrate that a destination is trustworthy, safe, and responsible, which is crucial for attracting visitors and encouraging repeat tourism. A coefficient of 0.064, T-statistic of 1.134, and P-value of 0.257 suggest that STP does not directly influence EB. This implies that sustainable tourism may have an indirect effect on the economy, with its benefits potentially realised through improved community development, DT, and other factors. The findings highlight the complexity of sustainable tourism, where economic outcomes may not always be directly measurable but can emerge through other important mechanisms. Thus, for optimal

economic benefits, tourism development must integrate sustainability, community engagement, and effective governance.

Table 6: Mediation Analysis (H5-H6)

Pathway (Mediation Effect)	Effect Type	β	Sample Mean	(STDEV)	T Stats.	P Values	Mediation Results
Indirect Effects							
CD -> DT -> EB	Indirect	0.053	0.053	0.021	2.552	0.011	Significant
STP -> CD -> DT -> EB	Indirect	0.033	0.033	0.014	2.424	0.015	Significant
STP -> CD -> DT	Indirect	0.223	0.224	0.037	6	0.000	Highly Significant
STP -> CD -> EB	Indirect	0.235	0.235	0.042	5.617	0.000	Highly Significant
STP -> DT -> EB	Indirect	0.072	0.072	0.028	2.587	0.010	Significant
Direct Effects							
CD -> DT	Direct	0.357	0.357	0.048	7.423	0.000	Highly Significant
CD -> EB	Direct	0.43	0.428	0.055	7.837	0.000	Highly Significant
DT -> EB	Direct	0.15	0.149	0.054	2.75	0.006	Significant
GS -> EB	Direct	0.348	0.35	0.055	6.349	0.000	Highly Significant
STP -> CD	Direct	0.625	0.626	0.05	12.562	0.000	Highly Significant
STP -> DT	Direct	0.706	0.706	0.032	22.056	0.000	Highly Significant
STP -> EB	Direct	0.405	0.406	0.059	6.83	0.000	Significant
Total Effects							
CD -> EB (Total Effect)	Total	0.43	0.428	0.055	7.837	0.000	Highly Significant
STP -> EB (Total Effect)	Total	0.405	0.406	0.059	6.83	0.000	Significant

Table 6 outlines the direct and indirect effects on sustainable tourism's economic benefits. It highlights how CD, DT, EB, GS, and STP interact. Several indirect pathways link CD, DT, STP, and EB. Notably, CD influences EB through DT, with a significant mediation effect ($\beta = 0.053$, $T = 2.552$, $P = 0.011$), suggesting that CD enhances DT, which in turn drives economic growth. Additionally, EB from STP is indirectly influenced by CD and DT, with a significant mediation effect ($T = 2.424$, $P = 0.015$) and a coefficient of 0.033. This highlights how STP impacts the economy, community, and trust. Further analysis reveals significant indirect effects of STP and CD, with STP strongly affecting DT through CD (coefficient = 0.223, $T = 6.000$, $P = 0.000$). This shows STP builds DT and CD. Moreover, STP indirectly affects EB through CD (coefficient = 0.235, $T = 5.617$, $P = 0.000$), demonstrating the economic impact of sustainable practices through community development.

The total effects analysis demonstrates how each variable influences economic benefits, both directly and indirectly. CD has a significant direct impact on EB, with a coefficient of 0.430, T statistic of 7.837, and P value of 0.000. This highlights the strong role of community development in driving economic outcomes. STP also influence EB through both direct and mediated pathways, with a coefficient of 0.405, T statistic of 6.830, and P value of 0.000. The mediation analysis in the table reveals the intricate relationships between sustainable tourism, community development, destination trust, government

support, and economic benefits. While community development and government support directly impact economic outcomes, sustainable tourism practices indirectly enhance community and destination trust. These findings suggest that a tourism development strategy that integrates sustainability, community engagement, and robust governance is crucial for maximising economic benefits.

GS moderates the relationships between CD, DT, STP, and EB, as shown in [Table 7](#). The moderation analysis investigates the influence of government support on these relationships and their impact on sustainable tourism's economic outcomes. Community development and government support significantly affect the economy, with the moderation effect being statistically significant at the 5% level. The interaction coefficient (Original Sample) is 0.102, T statistic is 1.958, and P value is 0.050. This highlights the importance of government policies in enhancing the economic benefits of community initiatives. Active government support strengthens the relationship between CD and EB, suggesting that government policies should complement community development to boost tourism. Government Support also moderates the relationship between DT and EB. The interaction coefficient between DT and GS on EB is -0.148, with a T statistic of 2.657 and a P value of 0.008, indicating a significant moderation effect. The negative coefficient suggests that excessive government intervention may reduce the positive impact of destination trust on economic benefits. This implies that while government support can enhance tourism outcomes, it may also lower trust if it is misaligned with tourist or local stakeholder expectations. Therefore, government interventions must be balanced and context-appropriate to support destination branding and trust-building without undermining economic benefits.

According to the statistical analysis, government support does not significantly reduce STP or EB. The interaction between STP and GS on EB has a coefficient of 0.063, T statistic of 1.225, and P value of 0.220, suggesting that government support does not moderate the direct relationship between sustainable tourism and economic benefits. This implies that economic outcomes from sustainable tourism may not be heavily influenced by government support or interventions. Sustainable tourism practices, focused on long-term sustainability and community benefits, can still operate effectively and yield economic benefits without significant government support. Policymakers and tourism managers must recognise that while government support is necessary, it should be strategically targeted.

Table 7: Moderation Effect (H7-H9)

Pathway (Moderation Effect)	Effect Type	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values	Moderation Results
Moderation Effects							
CD x GS -> Economic Benefits (EB)	Moderation	0.102	0.102	0.052	1.958	0.050	Significant
DT x GS -> Economic Benefits (EB)	Moderation	-0.148	-0.143	0.056	2.657	0.008	Significant
STP x GS -> Economic Benefits (EB)	Moderation	0.063	0.056	0.051	1.225	0.220	Not Significant
Direct Effects							
Community Development (CD) -> Destination Trust (DT)	Direct	0.357	0.359	0.048	7.36	0.000	Highly Significant
Community Development (CD) -> Economic Benefits (EB)	Direct	0.385	0.384	0.065	5.91	0.000	Highly Significant
Destination Trust (DT) -> Economic Benefits (EB)	Direct	0.154	0.151	0.053	2.886	0.004	Significant
Government Support (GS) -> Economic Benefits (EB)	Direct	0.376	0.374	0.058	6.514	0.000	Highly Significant
Sustainable Tourism Practices (STP) -> Community Development (CD)	Direct	0.625	0.625	0.05	12.501	0.000	Highly Significant
Sustainable Tourism Practices (STP) -> Destination Trust (DT)	Direct	0.483	0.481	0.051	9.495	0.000	Highly Significant
Sustainable Tourism Practices (STP) -> Economic Benefits (EB)	Direct	0.066	0.071	0.056	1.175	0.240	Not Significant
R2 Values							
Direct Effect R2 (EB)	R2	0.5	0.505				
Change in R2 due to Moderation (EB)	Change in R2	0.05	0.045				

The R² values at the end of the table indicate how well the model explains the variance in EB. The Direct Effect R² for EB is 0.5, meaning that community development, destination trust, and sustainable tourism practices account for 50% of the variance in economic outcomes. Incorporating moderation effects, such as government support interaction terms, increases the model's explanatory power by 5% (0.05 R² change). Direct effects contribute more to explaining the variation in economic benefits than government support moderation. Although government support can enhance or modify these relationships, the economic outcomes are primarily driven by direct factors.

Understanding the context of the R^2 value is vital for analysing Figure 2, which illustrates the relationship between independent and dependent variables. The R^2 coefficient of determination in regression models quantifies the percentage of variance in the dependent variable explained by the independent variables. A high R^2 value indicates that the model's predictors have a significant impact on the dependent variable. In social science research, R^2 values tend to vary depending on the complexity of the phenomenon and the number of variables included in the model. Conversely, an R^2 value lower than this suggests that significant external factors are influencing the dependent variable.

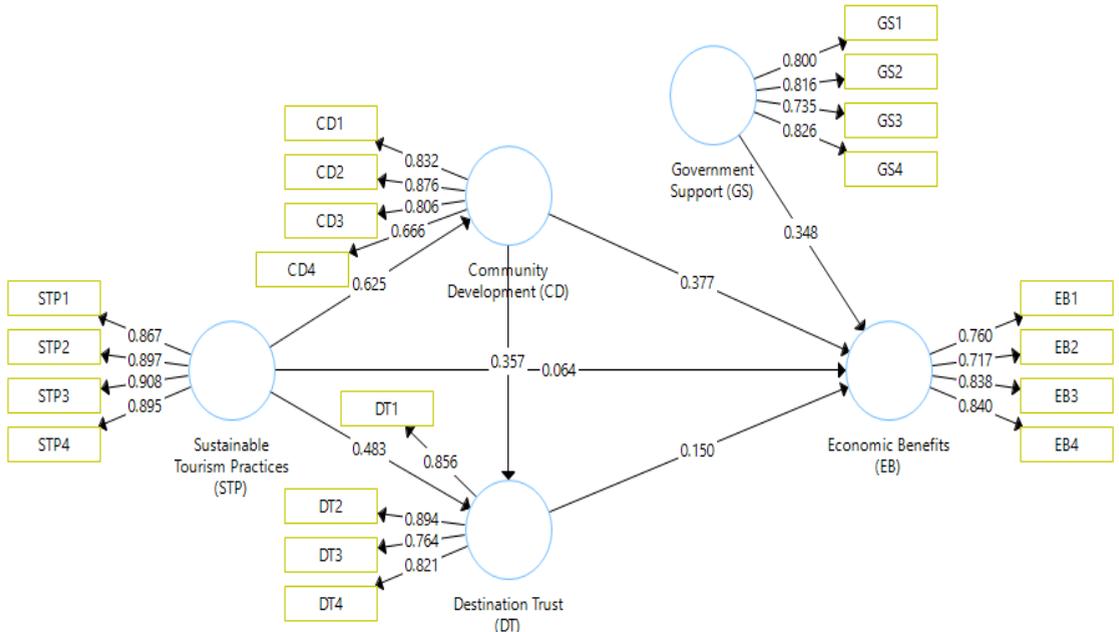


Figure 2: Graphical Presentation of Model

Figure 2 may depict variable relationships through a scatter plot or a fitted regression line. A steeper slope indicates a stronger effect of the independent variable on the dependent variable. The distribution of data points around the regression line influences the R^2 value, with points clustering closer to the line increasing the R^2 and enhancing the model's explanatory power. When interpreting R^2 , it is important to consider the research context. For instance, environmental studies often yield high R^2 values due to the deterministic nature of physical processes (Schober & Schwarte, 2018). On the other hand, lower R^2 values may still reflect meaningful relationships in psychological or sociological research, where human behaviour introduces variability, but a strong theoretical framework supports the findings. Proper interpretation of the findings requires a consideration of the study context and relevant literature.

CD, DT, STP, and EB are moderated by GS, as depicted in Figure 3. The Figure 3 illustrates how government support influences economic benefits and other variables.

Government policies and resources enhance the economic impact of community initiatives, as demonstrated in the graph. However, excessive or misaligned government intervention appears to slightly diminish the positive effect of DT on EB, suggesting that too much government support may undermine the natural trust-building process among tourists. Meanwhile, STP and EB remain stable even in the absence of government support, indicating that sustainability and community-driven initiatives are key drivers of economic outcomes. Figure 3 highlights the complex, multifaceted role of government support in shaping economic benefits, with effects that vary depending on the context and the nature of the relationship.

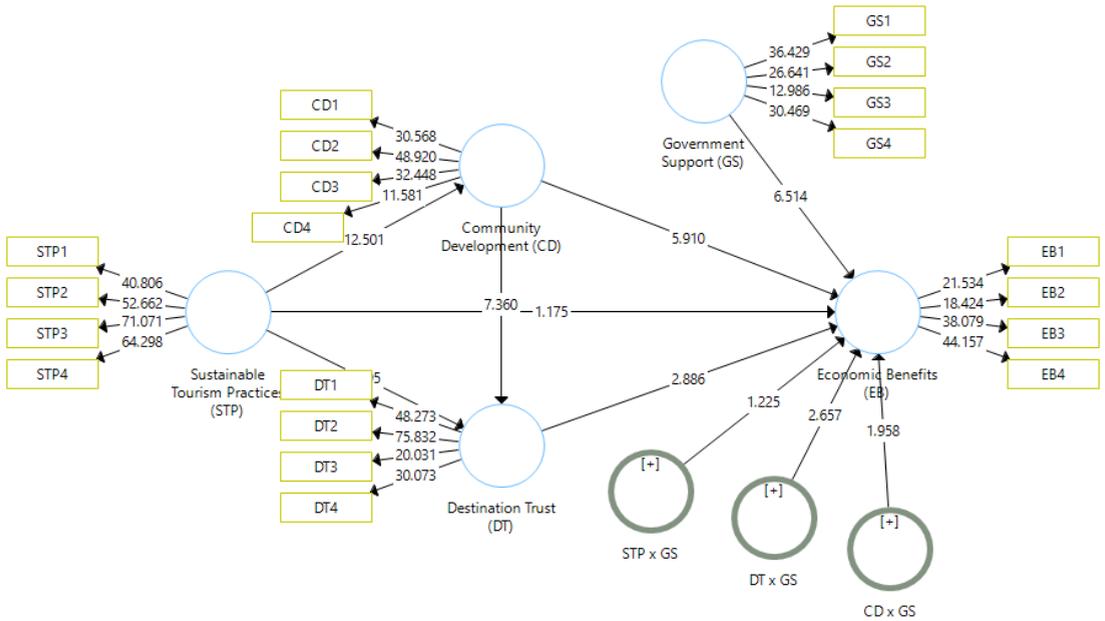


Figure 3: Moderation Effect Graphical Presentation

DISCUSSION

The study explores the economic benefits of sustainable tourism, highlighting the roles of CD, DT, STP, and GS in influencing economic outcomes, as outlined in hypotheses H1–H9. The analysis of direct and moderating effects reveals both individual and complex interactions. Starting with H1, the results indicate that CD positively impacts DT, with a strong coefficient and high T statistic, suggesting that community development enhances DT. Supporting findings by Zhang et al. (2022), investments in local community projects, such as infrastructure and social services, have been shown to improve both residents' quality of life and tourists' perceptions of a destination's trustworthiness and appeal.

The analysis supports Hypothesis H2, demonstrating that community development enhances economic outcomes. Improved community services and infrastructure contribute to both tourism growth and broader economic development, aligning with

modern tourism strategies that prioritise inclusive and sustainable economic growth. Additionally, the results affirm Hypothesis H3, which posits that DT positively influences economic benefits. [Huang et al. \(2023\)](#) observed that effective communication, high quality, and safety enhance tourist satisfaction and loyalty, thus boosting economic outcomes. This relationship underscores the importance of trust in a post-pandemic tourism environment, where travellers increasingly value safety and reliability. Destinations that foster trust are more likely to recover and thrive in the competitive global tourism market ([Nugraha et al., 2022](#)).

Hypothesis H4 is supported, demonstrating that GS significantly enhances EB, highlighting the crucial role of governmental interventions in tourism. [Smith and Jones \(2022\)](#) found that government policies, financial incentives, and infrastructure development can stimulate tourism growth. Effective government support mitigates risks, provides necessary resources, and encourages stable investments, thereby boosting economic outcomes. Public-private collaborations are crucial for promoting sustainable tourism development. Results also strongly support Hypothesis H5, indicating that STP positively influence CD. [Li et al. \(2021\)](#) found that eco-friendly accommodations, community-based tourism, and sustainable resource management contribute to community development by preserving culture, protecting natural resources, and benefiting local populations. The robust STP-CD relationship underscores how sustainability promotes environmental stewardship, strengthens community resilience, and empowers local stakeholders ([Matiku et al., 2021](#)).

The analysis indicates that STP positively impact DT. Responsible and ethical tourism fosters trust, with [Kim et al. \(2024\)](#) noting that tourists are increasingly choosing sustainable destinations. This study reinforces the notion that sustainable destinations can enhance trust and attract environmentally conscious travellers. Hypotheses H7–H9 highlight the moderating role of GS on CD, DT, STP, and EB. Hypothesis H7 confirms that GS significantly moderates the relationship between CD and EB. This implies that government support strengthens the economic outcomes of community development. While GS moderates the relationship between DT and EB, Hypothesis H8 showed a weaker effect, aligning with [Garcia and Martinez \(2022\)](#), who argue that although government support is generally beneficial, it may reduce the organic benefits of building destination trust if perceived as overbearing or misaligned with local needs and expectations.

Finally, Hypothesis H9 explored how GS moderates the relationship between STP and EB. The results show that government support does not diminish the economic impact of sustainable tourism. According to [Roberts and Brown \(2021\)](#), sustainable tourism practices are robust and yield long-term benefits without the need for government intervention. Sustainability focuses on enduring outcomes, regardless of government involvement, as sustainable practices can maintain economic benefits even in the

presence of external moderators. Hypotheses H1–H9 demonstrate the complexity of sustainable tourism. The study reveals that while community development, destination trust, and government support individually promote economic growth, their interactions, particularly when moderated by government support, add complexity to the equation. These findings not only support the hypotheses but also deepen our understanding of the dynamics of sustainable tourism, providing valuable insights for policymakers, practitioners, and scholars in optimising strategies for both economic and social sustainability.

This study highlights that destination trust and community development are key drivers of sustainable tourism in North China. Improved infrastructure, social services, and community engagement enhance tourism and local economies. Building destination trust through quality, safety, and transparency boosts tourist loyalty and economic benefits. Responsible tourism further strengthens credibility and community development. The study recommends sustainable practices, community development, and targeted government support to boost the region's tourism economy. It also concludes that government support should enhance community development and economic growth but cautions that overregulation or misaligned policies can undermine destination trust. Effective government intervention must align with local needs to maximise sustainability and economic outcomes.

CONCLUSION

This study concluded that sustainable tourism, destination trust, community development, and government support are key to improving North China's tourism economy. Community development and destination trust directly and moderately enhance economic benefits. Improved infrastructure, social services, and stakeholder empowerment foster economic growth by attracting tourists, boosting satisfaction, and increasing spending. Trust-building is essential, as destination trust, based on reliable services and safety, encourages repeat visits and positive recommendations. The study highlights that transparent communication, quality service, and a safe environment are crucial for sustaining economic growth in the tourism sector. The study found that government support moderates community development's economic benefits, strengthening the link between community development and economic outcomes. However, it negatively moderates the relationship between destination trust and economic benefits, suggesting that excessive or misaligned government intervention can undermine natural trust-building. This highlights the need for carefully calibrated government actions that support local initiatives and destination branding without conflicting with the needs of local stakeholders and tourists. This study highlights the importance of sustainable tourism, community development, destination trust, and government support in boosting North China's economy. Strategic government policies, community engagement, and sustainable practices are key to maximising tourism outcomes. To optimise economic potential, stakeholders must focus on community

development, trust-building, and aligned policies. However, excessive government intervention should be avoided to maintain trust and sustainability. The study's cross-sectional data limits predictions and generalisation to other regions, requiring further research, including longitudinal studies and multiple regional contexts. Future studies should also explore digital marketing, tourist satisfaction, and technological innovations, with qualitative methods offering deeper insights for policy development.

RESEARCH IMPLICATIONS

The findings are of considerable importance for policymakers, tourism practitioners, and community stakeholders aiming to stimulate economic growth through sustainable tourism. Economic growth is closely tied to community development, highlighting the need for tourism strategies that prioritise infrastructure, social services, and community engagement. By developing eco-friendly facilities, supporting local businesses, and promoting cultural preservation, tourism can become more appealing and inclusive, thereby fostering economic growth. A trustworthy destination image, underpinned by transparent, consistent, and high-quality services, is crucial, as destination trust is strongly linked to economic benefits. To build trust, tourism stakeholders must provide accurate information, uphold safety standards, and enhance the visitor experience, as today's travellers seek memorable, safe experiences. This approach will aid North China and other tourism destinations in remaining competitive globally. The study also underscores the role of moderate government support in promoting sustainable tourism development. Government financial incentives, infrastructure support, and the establishment of sustainable regulatory frameworks play a key role in advancing community development. However, government support must be carefully calibrated to avoid undermining organic trust-building, as it moderates the relationship between destination trust and economic benefits. Policymakers should, therefore, focus on supporting local initiatives and empowering destinations and communities to develop their own trust and identities. By collaborating with private stakeholders and government agencies, communities can devise tourism strategies that are economically, socially, and environmentally sustainable. This integrated approach would not only boost local economies but also preserve culture and nature.

REFERENCES

- Achmad, F., Prambudia, Y., & Rumanti, A. A. (2023). Sustainable Tourism Industry Development: A Collaborative Model of Open Innovation, Stakeholders, and Support System Facilities. *IEEE Access*, *11*, 83343-83363. <https://doi.org/10.1109/ACCESS.2023.3301574>
- Bhat, A. A., Majumdar, K., & Mishra, R. (2020). Local support for tourism development and its determinants: an empirical study of Kashmir region. *Asia Pacific Journal of Tourism Research*, *25*(11), 1232-1249. <https://doi.org/10.1080/10941665.2020.1837890>

- Bramwell, B., & Lane, B. (2011). Critical research on the governance of tourism and sustainability. *Journal of Sustainable Tourism*, 19(4-5), 411-421. <https://doi.org/10.1080/09669582.2011.580586>
- Bryman, A., & Bell, E. (2015). *Business research methods* (4th ed.). Oxford University Press. <https://search.worldcat.org/title/1015668610>
- Chan, J. K. L. (2023). Sustainable rural tourism practices from the local tourism stakeholders' perspectives. *Global Business & Finance Review*, 28(3), 136-149. <http://dx.doi.org/10.17549/gbfr.2023.28.3.136>
- Creswell, J. W. (1994). *Research design: Qualitative & quantitative approaches*. Sage Publications, Inc. <https://psycnet.apa.org/record/1996-97121-000>
- Dangi, T., & Jamal, T. (2020). An integrated approach to “sustainable community-based tourism.” *Sustainability*, 12(6), 2359. <https://doi.org/10.3390/su12062359>
- Dogra, N., Adil, M., Dhamija, A., Kumar, M., & Nasir, M. (2022). What makes a community sustainably developed? A review of 25 years of sustainable community tourism literature. *Community Development*, 53(5), 585-606. <https://doi.org/10.1080/15575330.2021.2015606>
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of marketing research*, 18(1), 39-50. <https://doi.org/10.1177/002224378101800104>
- Fowler, F. J. (2014). *Survey research methods* (4th ed.). Sage Publications. <https://cir.nii.ac.jp/crid/1130282269953106688>
- Graci, S. (2020). Collaboration and partnership development for sustainable tourism. In *Tourism and Sustainable Development Goals* (pp. 232-249). Routledge. <https://www.researchgate.net/publication/306136833>
- Garcia, M., & Martinez, J. (2022). Economic benefits of sustainable tourism: A comparative analysis. *Sustainability*, 14(10), 6213. <https://doi.org/10.3390/su14106213>
- Garcia, M., & Martinez, J. (2023). Barriers to sustainable tourism development: A case study from North China. *Tourism Planning & Development*, 20(1), 1-17. <https://doi.org/10.1080/21568316.2022.2124745>
- Hall, C. M. (2008). Tourism and climate change: Knowledge gaps and issues. *Tourism Recreation Research*, 33(3), 339-350. <https://doi.org/10.1080/02508281.2008.11081557>
- Huang, X., Li, W., & Wang, Z. (2023). Destination trust and economic benefits in sustainable tourism: Mediating effects of tourist satisfaction. *Tourism Economics*, 29(1), 89-107. <https://doi.org/10.1177/13548166211047000>
- Kim, K., Uysal, M., & Sirgy, M. J. (2018). How does tourism in a community impact the quality of life of community residents? *Tourism Management*, 71, 56-68. <https://doi.org/10.1016/j.tourman.2018.09.018>
- Kim, S., Park, J., & Lee, H. (2024). Sustainable tourism and destination trust: A structural equation modeling approach. *Journal of Travel Research*, 63(3), 287-302. <https://doi.org/10.1177/0047287522109215>

- Kummitha, H. R. (2020). Stakeholders involvement towards sustaining ecotourism destinations: The case of social entrepreneurship at mangalajodi ecotourism trust in India. *Geo Journal of Tourism and Geosites*, 29(2), 636-648. <http://doi.org/10.30892/gtg.29220-495>
- Li, X., Kim, J. S., & Lee, T. J. (2021). Contribution of supportive local communities to sustainable event tourism. *Sustainability*, 13(14), 7853. <https://doi.org/10.3390/su13147853>
- Liu, C., & Li, M. (2022). Community-based tourism in China: Development, challenges, and future prospects. *Asia Pacific Journal of Tourism Research*, 27(5), 477-495. <https://doi.org/10.1080/10941665.2022.2064775>
- Market Research Future. (2023). Biopharmaceuticals Market Research Report - Forecast to 2032. Retrieved from <https://www.marketresearchfuture.com/reports/biopharmaceuticals-market-8439>
- Matiku, S. M., Zuwarimwe, J., & Tshipala, N. (2021). Sustainable tourism planning and management for sustainable livelihoods. *Development Southern Africa*, 38(4), 524-538. <https://doi.org/10.1080/0376835X.2020.1801386>
- Ministry of Culture, Sports and Tourism, Republic of Korea. (2023). Annual Report 2023. Retrieved from <https://www.mcst.go.kr/english/>
- Nunkoo, R., & Ramkissoon, H. (2012). Power, trust, social exchange, and community support. *Annals of Tourism Research*, 39(2), 997-1023. <https://doi.org/10.1016/j.annals.2011.11.017>
- Nugraha, A. T., Rahmawati, A. A., & Prayitno, G. (2022). Farmers' social capital in supporting sustainable agriculture: the case of Pujon Kidul tourism village, Indonesia. *Civil and Environmental Science*, 5(2), 235-249. <http://dx.doi.org/10.21776/ub.civense.2022.00502.12>
- Pagliara, F., Aria, M., Russo, L., Della Corte, V., & Nunkoo, R. (2021). Validating a theoretical model of citizens' trust in tourism development. *Socio-Economic Planning Sciences*, 73, 100922. <https://doi.org/10.1016/j.seps.2020.100922>
- Prayitno, G., Auliah, A., Ari, I. R. D., Effendi, A., Hayat, A., Delisa, A., Siankwilimba, E., & Hiddlestone-Mumford, J. (2024). Social capital for sustainable tourism development in Indonesia. *Cogent Social Sciences*, 10(1), 2293310. <https://doi.org/10.1080/23311886.2023.2293310>
- Purnomo, S., Rahayu, E. S., Riani, A. L., Suminah, S., & Udin, U. (2020). Empowerment model for sustainable tourism village in an emerging country. *Journal of Asian Finance, Economics and Business*, 7(2), 261-270. <https://doi.org/10.13106/jafeb.2020.vol7.no2.261>
- Rahmawati, R., Prayitno, G., Firdausiyah, N., Dinanti, D., Hayat, A., Efendi, A., & Roskruge, M. (2023). Harnessing social capital for fostering non-tourism actor involvement in sustainable tourism: A case study of an Indonesian village. *J. Urban Dev. Manag*, 2(2), 69-83. <https://doi.org/10.56578/judm020202>
- Roberts, L., & Brown, P. (2021). Resilient tourism in China: Sustainable practices in

- the face of economic downturns. *Annals of Tourism Research*, 89, 103260. <https://doi.org/10.1016/j.annals.2021.103260>
- Sarfraz, M., Raza, M., Khalid, R., Ivascu, L., Albasher, G., & Ozturk, I. (2022). Coronavirus disease 2019 safety measures for sustainable tourism: the mediating effect of tourist trust. *Frontiers in Psychology*, 13, 784773. <https://doi.org/10.3389/fpsyg.2022.784773>
- Sarstedt, M., Ringle, C. M., & Hair, J. F. (2017). Partial least squares structural equation modeling. In: Homburg, C., Klarmann, M., Vomberg, A. (eds) *Handbook of Market Research*. Springer, Cham. https://doi.org/10.1007/978-3-319-05542-8_15-1
- Saunders, M., Lewis, P., & Thornhill, A. (2016). *Research methods for business students* (7th ed.). Pearson Education. <https://search.worldcat.org/title/1001708543>
- Schober, P., & Schwarte, L. A. (2018). Correlation coefficients: Appropriate use and interpretation. *Anesthesia & Analgesia*, 126(5), 1763–1768. <https://doi.org/10.1213/ANE.0000000000002864>
- Smith, A., & Jones, R. (2022). The role of government support in sustainable tourism development: A critical review. *Current Issues in Tourism*, 25(7), 836-852. <https://doi.org/10.1080/13683500.2021.1915432>
- Streimikiene, D., Svagzdiene, B., Jasinskas, E., & Simanavicius, A. (2021). Sustainable tourism development and competitiveness: The systematic literature review. *Sustainable development*, 29(1), 259-271. <https://doi.org/10.1002/sd.2133>
- Su, M. M., & Wall, G. (2014). Community participation in tourism at a world heritage site: Mutianyu Great Wall, Beijing, China. *International Journal of Tourism Research*, 16(2), 146-156. <https://doi.org/10.1002/jtr.1909>
- Than, T. T., Kieu, T. P. H., Pham, T. A. D., Hoang, T. C. V., Tran, T. H., Nguyen, H. D., & Dao, T. K. (2020). Impact of community attachment and resident's support on destination sustainability: Evidence from spiritual and community destination in Vietnam. *The Journal of Asian Finance, Economics and Business*, 7(8), 361-369. <http://dx.doi.org/10.13106/jafeb.2020.vol7.no8.361>
- Tichaawa, T. M., Dayour, F., & Nunkoo, R. (2023). Residents' trust in government, tourism impacts, and quality of life: Testing a structural model. *Development Southern Africa*, 40(2), 223-242. <https://doi.org/10.1080/0376835X.2021.1974820>
- Wang, Y., Zhang, X., & Li, J. (2023). The impact of sustainable tourism practices on tourist satisfaction and loyalty: A case study from North China. *Journal of Sustainable Tourism*, 31(2), 214-233. <https://doi.org/10.1080/09669582.2022.2118473>
- Wani, M. D., Dada, Z. A., & Shah, S. A. (2024). The impact of community empowerment on sustainable tourism development and the mediation effect of local support: a structural equation Modeling approach. *Community Development*, 55(1), 50-66. <https://doi.org/10.1080/15575330.2022.2109703>

- Zhang, H., & Chen, Y. (2022). Trust-building in post-pandemic tourism: Evidence from North China. *Tourism Management*, 92, 104538. <https://doi.org/10.1016/j.tourman.2022.104538>
- Zhao, L., Sun, Q., & Chen, F. (2023). Overcoming challenges in sustainable tourism: Collaborative approaches in North China. *Journal of Sustainable Tourism*, 31(4), 556-573. <https://doi.org/10.1080/09669582.2022.2119475>

APPENDIX I

Questionnaire for Assessing the Economic Benefits of Sustainable Tourism in North China

Section A: Demographic Information

1. **Age:**
 - 18-25 years
 - 26-35 years
 - 36-45 years
 - 46-55 years
 - 56 years and above
2. **Gender:**
 - Male
 - Female
 - Prefer not to say
3. **Education Level:**
 - High School
 - Associate Degree
 - Bachelor's Degree
 - Master's Degree
 - Doctorate
 - Other (Please specify: _____)
4. **Occupation:**
 - Tourism Industry Professional
 - Local Resident
 - Tourist
 - Business Owner
 - Government Official
 - Other (Please specify: _____)
5. **Monthly Income:**
 - Below 3,000 CNY
 - 3,000-6,000 CNY

- 6,001-9,000 CNY
- 9,001-12,000 CNY
- Above 12,000 CNY

Section B: Sustainable Tourism Practices (STP)

Based on Bramwell & Lane (2011)

1. The tourism activities in this area prioritize environmental conservation.
 - Strongly Disagree
 - Disagree
 - Neutral
 - Agree
 - Strongly Agree
2. Efforts are made to preserve the cultural heritage of this destination.
 - Strongly Disagree
 - Disagree
 - Neutral
 - Agree
 - Strongly Agree
3. Tourists are encouraged to engage in eco-friendly practices during their stay.
 - Strongly Disagree
 - Disagree
 - Neutral
 - Agree
 - Strongly Agree
4. The tourism industry here actively reduces its carbon footprint.
 - Strongly Disagree
 - Disagree
 - Neutral
 - Agree
 - Strongly Agree

Section C: Destination Trust (DT)

Based on Nunkoo & Ramkissoon (2012)

1. I trust the local tourism authorities to manage the destination responsibly.
 - Strongly Disagree
 - Disagree
 - Neutral
 - Agree
 - Strongly Agree
2. The information provided about this destination is accurate and reliable.
 - Strongly Disagree
 - Disagree

- Neutral
 - Agree
 - Strongly Agree
3. I believe that tourism development in this area benefits the local community.
- Strongly Disagree
 - Disagree
 - Neutral
 - Agree
 - Strongly Agree
4. Local tourism services are trustworthy and reliable.
- Strongly Disagree
 - Disagree
 - Neutral
 - Agree
 - Strongly Agree

Section D: Community Development (CD)

Based on Su & Wall (2014)

1. Tourism has led to significant improvements in local infrastructure (e.g., roads, public facilities).
- Strongly Disagree
 - Disagree
 - Neutral
 - Agree
 - Strongly Agree
2. The tourism industry has contributed to better educational opportunities for residents.
- Strongly Disagree
 - Disagree
 - Neutral
 - Agree
 - Strongly Agree
3. Tourism activities have strengthened the sense of community in this area.
- Strongly Disagree
 - Disagree
 - Neutral
 - Agree
 - Strongly Agree
4. Healthcare services in the community have improved due to tourism revenue.
- Strongly Disagree
 - Disagree
 - Neutral

- Agree
- Strongly Agree

Section E: Economic Benefits (EB)

Based on Kim, Uysal, & Sirgy (2018)

1. Tourism has significantly increased the revenue of local businesses.
 - Strongly Disagree
 - Disagree
 - Neutral
 - Agree
 - Strongly Agree
2. Tourism has created more job opportunities for local residents.
 - Strongly Disagree
 - Disagree
 - Neutral
 - Agree
 - Strongly Agree
3. Investments in tourism yield a good return.
 - Strongly Disagree
 - Disagree
 - Neutral
 - Agree
 - Strongly Agree
4. The tourism industry has positively impacted the local economy.
 - Strongly Disagree
 - Disagree
 - Neutral
 - Agree
 - Strongly Agree

Section F: Government Support (GS) [Moderator]

Based on Hall (2008) and Bramwell & Lane (2011)

1. The government provides financial incentives for sustainable tourism practices.
 - Strongly Disagree
 - Disagree
 - Neutral
 - Agree
 - Strongly Agree
2. Government policies strongly support the development of sustainable tourism.
 - Strongly Disagree
 - Disagree
 - Neutral

- Agree
 - Strongly Agree
3. There is significant government investment in tourism infrastructure in this area.
- Strongly Disagree
 - Disagree
 - Neutral
 - Agree
 - Strongly Agree
4. Local government collaborates with community leaders to promote sustainable tourism.
- Strongly Disagree
 - Disagree
 - Neutral
 - Agree
 - Strongly Agree