CÁC YẾU TỐ TÁC ĐỘNG TỚI PHÁT TRIỂN DU LỊCH XANH TỈNH THÁI NGUYÊN

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Tóm tắt

Du lịch xanh có vai trò cực kỳ quan trọng trong phát triển kinh tế xã hội, nhưng những nghiên cứu về lĩnh vực này còn thiếu và kết quả không đồng nhất. Sử dụng số liệu điều tra sơ cấp và phương pháp hồi quy đa biến, bài báo đã xác định và đánh giá ảnh hưởng của các nhân tố tới phát triển du lịch xanh tại tỉnh Thái Nguyên. Kết quả nghiên cứu cho thấy, chính sách hỗ trợ, sự tham gia của các bên liên quan, năng lực quản trị và nguồn nhân lực, tiềm năng của địa phương, nhận thức của người dân và điều kiện kinh tế xã hội, cơ sở hạ tầng và giao thông là các yếu tố quan trọng thúc đẩy sự phát triển du lịch xanh của tỉnh Thái Nguyên. Bên cạnh đó, bài báo đã đề xuất các giải pháp nhằm thúc đẩy phát triển du lịch xanh, nhấn mạnh tầm quan trọng của việc nâng cao nhận thức cho người dân, xây dựng các chính sách hỗ trợ và tăng cường áp dụng công nghệ thông tin quản lý và vận hành du lịch.

Từ khóa: *Du lịch xanh, Thái Nguyên, Phát triển kinh tế, Phát triển bền vững, Du lịch sinh thái.*

FACTORS AFFECTING THE DEVELOPMENT OF GREEN TOURISM IN THAI NGUYEN PROVINCE

Abstract

Green tourism has a crucial role in socio-economic development, but research in this area is lacking, and the results are mixed. Using survey and multivariate regression method, the paper has identified and evaluated the influence of factors affecting green tourism development in Thai Nguyen province. The study found evidence that supporting policies, stakeholders engagement, management capacity and human resources, local potential, people's awareness and socio-economic conditions, infrastructure and transportation are important factors promoting green tourism development in Thai Nguyen province. In addition, the paper has proposed solutions to promote green tourism development, emphasizing the importance of raising people's awareness, developing supporting policies and increasing the application of information technology in tourism management and operation.

Keywords: *Green Tourism, Thai Nguyen, Economic Development, Sustainable Development, Ecotourism*

JEL classification: L83; L8.

1. Introduction

Green tourism is an increasingly popular sustainable strategy to promote sustainable and effective tourism development. Green tourism creates a new environment for Vietnamese tourism, focusing on community cooperation to preserve the landscape, nature, habitat and indigenous cultural customs. Green tourism can be understood as a combination of tourism and environmental protection, as well as maintaining the lives of local people. This type of tourism is developed based on nature, reduces emissions, encourages the use of renewable energy, promotes local cultural heritage and uses environmentally friendly products.

Green tourism products are the foundation of green tourism. Green products must meet the following standards: Products are manufactured from environmentally friendly materials; products that provide safe solutions for the environment and health;

products reduce the impact on the environment during spending. In Vietnam, green tourism is one of the important contents of Vietnam's tourism development strategy. Accordingly, tourism development becomes a key economic sector towards sustainability, protecting the environment, creating jobs, improving social security and preserving cultural heritages and traditional values.

Green tourism has many benefits for all stakeholders. For travel agents, this business model has high profits by exploiting natural resources and available local resources. Further, green tourism helps raise awareness about environmental protection and natural resources, thereby improving brand value for travel agencies.

For tourists, green tourism helps satisfy the need to discover and explore new lands. Green tourism helps visitors learn more about ecosystems, the relationship between the environment and people, and relieves stress and pressure. Besides, green tourism helps to enhance the love for nature and understanding more about local culture. In particular, green tourism is more economical than other forms of tourism.

For people and localities, green tourism helps create jobs, improve incomes, create livelihoods, preserve cultural values, and promote the image of the homeland. At the same time, green tourism also helps to protect the local natural landscape.

Nepomnyashchyy et al. (2003) emphasized a correlation between the tourist industry and economic growth - “a consequence of the multiplier effect”. Accordingly, directly and indirectly, green tourism improves the region's economy, socio-economic development, and cultural legacy. While tourism has the potential to boost employment and revenue in popular destinations, it also poses risks to the local environment and community due to human activity. State supervision over exploiting natural resources and compliance with environmental regulations is vital for tourism to ensure sustainable socio-economic growth. At the national and provincial levels, tourism policy should encourage the development of an ecological worldview and a moderate approach to consumption. Both visitors and locals in popular tourist destinations benefit significantly from the sector's growth. Furthermore, Zhang et al. (2023) confirmed that green tourism is positively and linearly related to the green economic growth of ASEAN, especially in the post-COVID-19 era.

Green tourism not only provides visitors with interesting and wonderful experiences of exploring nature, meeting the needs of entertainment, exploration and relaxation but also helps to raise people's awareness about protecting the environment and natural resources and ecosystems. This is extremely important for the locality to both develop the economy and protect the environment towards sustainable development.

In Thai Nguyen, green tourism has been identified by the local government as one of the important tourism forms for local economic development. Although there is a lot of potential, the development of green tourism in Thai Nguyen is still underrated and faces many challenges. Hence, this study is needed.

2. Literature review

Green tourism is widely accepted as a term for eco-friendly tourism. Researchers use this term for different purposes. On the one hand, this term is used to inform customers that the place they visit is associated with natural and pristine beauty. Besides, Wight (1994) also used the phrase "environmentally conscious travel" or "Nature vacations" to describe green tourism. On the other hand, green tourism is used to describe tourism activities that take place in an area that does not harm the environment (Font and Tribe, 2001).

Thus, it can be understood that a product or service can be considered green when it brings benefits but does not harm the environment. It is not easy to assess how tourism activities affect the environment. The unification of evaluation criteria, as well as acceptance thresholds, is controversial. Font and Tribe (2001) argue that tourism is a relatively green industry, except for the impacts related to land and transport development. However, the issue of discharge into the environment is debatable.

Sepahvand et al. (2018) examined the factors affecting tourism development by studying the perspectives of stakeholders (people, officials and tourists) in developing laws and regulations on tourism. Accordingly, the natural landscape, local products, culture, cuisine and festivals can positively impact the development of tourism in Bisheh Station. Khosravi (2007) concluded that diversification of services, accommodation and entertainment are essential factors to help satisfy the needs of tourists, thereby promoting tourism development. In addition, enhancing the quality of human resources, safety and security of the resort and environmental protection policies play a crucial role.

Salici (2018) analyzed the relationship between local participants (people, local government, businesses) and sustainable tourism development. Research has shown that financial support policies, infrastructure development, sanitation, road and sidewalk planning are essential for tourism. Besides, Baghani (2017) also emphasized that awareness of the importance of green tourism is vital to promote effective green tourism development.

To promote green tourism, Shatarian et al. (2017) emphasized the importance of natural landscapes, tourism organization, management skills, as well as attitudes of people and guides. Karami (2017) said that one of the major factors hindering the development of green tourism is the lack of publicity by the local authorities on green tourist attractions, the small number of resorts, poor traffic, and the lack of proper planning and facilities. Birendra and Suman (2018) highly appreciate people's participation in green tourism development programs, visitor satisfaction, and local support policies to develop green tourism. Besides, it is necessary to build modern accommodation facilities, raise the awareness of people in the area and create livelihoods for them. Erkara et al. (2017) argue that the level of community readiness and fair benefit-sharing significantly impact the development of green tourism.

Nguyen (2022) assessed the factors affecting sustainable ecotourism in Ca Mau province by surveying 500 managers, experts, and tourists at tourist sites. He identified five major factors affecting sustainable ecotourism development: Natural resources, infrastructure, human resources, tourism policies and regional linkages.

3. Methodology

3.1. The model

From the literature review, we proposes a research model of factors affecting the development of green tourism specifically as follows:

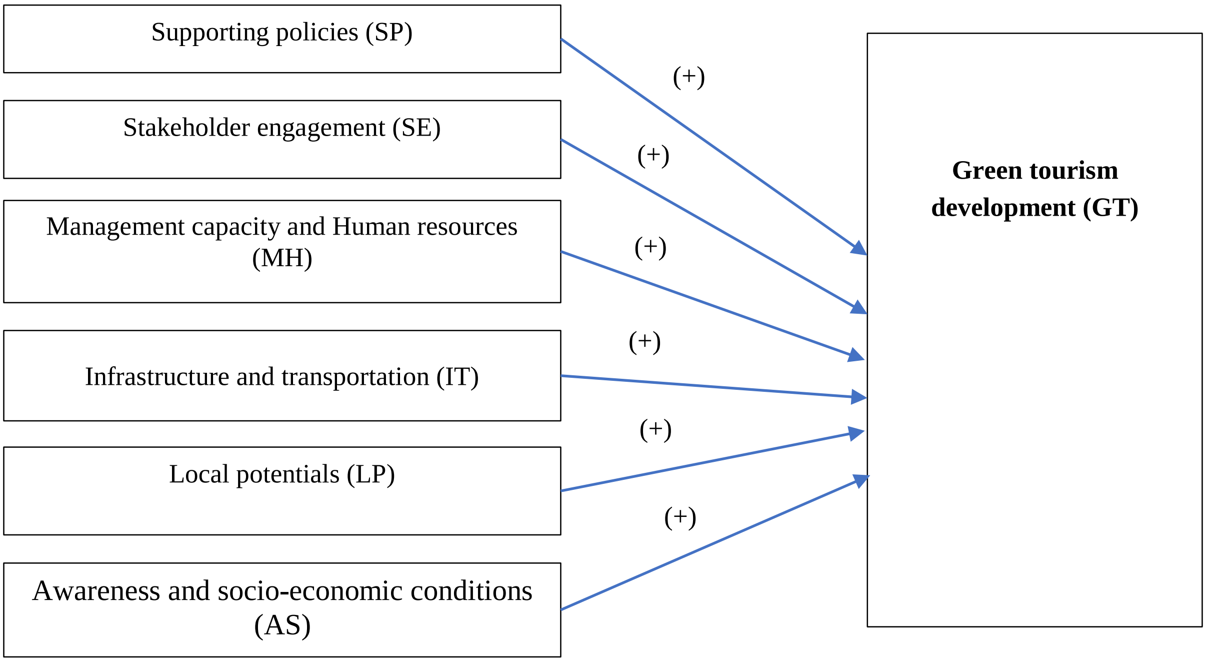
Supporting policies (SP)
Stakeholder engagement (SE)
Management capacity and Human resources (MH)
Infrastructure and transportation (IT)
Local potentials (LP)
Awareness and socio-economic conditions (AS)
(+)
(+)
(+)
(+)
(+)
(+)
Green tourism development (GT)

Diagram 1: The proposal research model

The research model includes 06 independent variables and 01 dependent variable. We use Cronbach's Alpha to test reliability and Exploratory factor analysis to suggest variable groups. To assess the impact of factors affecting green tourism development in Thai Nguyen province, we use multivariate regression follow the Enter method.

3.2. Hypotheses

H1: Supporting policies promote green tourism development

H2: Stakeholder engagement has a positive impact on the green tourism development

H3: Management capacity and human resources have a positive influence on green tourism development

H4: Infrastructure and transportation enhance green tourism development

H5: Local potentials influence positive significantly green tourism development

H6: Awareness and socio-economic conditions improve the development of green tourism

3.3. Sample size

According to Hair et al. (2006), the ratio of sample to observed variable 5:1 is satisfactory, and the larger the sample size, the more accurate the study. In this study, we distributed 500 questionnaires to various tourism development participants, including local leaders, experts, travel agents, tourists, and collected 422 valid answers. The number of observed variables is 24. Thus, the sample size meets the statistical standard.

3.4. The scale

Inheriting previous studies and through discussions with experts and managers, the measured variables are as follows:

Table 1: *Variable measurement*

No.	Variable	Indicators
1	Supporting policies (SP)	The government has policies to support green tourism development Credit policies is good Good policies on training human resources Local government has green tourism planning The implementation of policies is **effective**
2	Stakeholders engagement (SE)	Residents participate in providing accommodation and food services to tourists Accommodation and food establishments participating in green tourism Socio-political organizations supporting green tourism development Travel businesses have close links with accommodation, restaurants and localities
3	Management capacity and human resources (MH)	People and businesses have experience and seniority in operating green tourism Human resources meet in quantity and quality Guides and waiters are well-trained in professional expertise and service attitude Good business management skills
4	Local potential (LP)	The place has many traditional foods and drinks The locality regularly organizes cultural performances, ceremonies and anniversaries Scenic spots and landscapes suitable for green tourism development The province has distinctive cultural identity
5	Awareness and socio-economic conditions (AS)	People and businesses are aware of the importance of green tourism Companies and local citizens have investment finance Good local average income There is a division of income of local people and businesses from green tourism
6	Infrastructure and transportation (IT)	Wide and convenient roads Quantity and quality of accommodation facilities meet standards Diversified means of transport serve customers
7	Green tourism development (GT)	Green tourism in Thai Nguyen is good The locality both exploits tourism and protects the environment Tourism brings many benefits to stakeholders Thai Nguyen has a lot of potential for developing green tourism

Source: Author's calculation

The indicators are rated on a 5-point Likert scale (from 1: Totally disagree, to 5: Totally agree).

4. Findings and discussion

Factor analysis is used to narrow the estimated parameters and identify groups of factors to prepare for the following analysis. Exploratory factor analysis and Cronbach's Alpha test are two complementary tools when one is used to suggest groups of independent questions into factors and the other to test reliability and the representativeness of those questions in explaining factors. In this section, we use exploratory factor analysis to group questions that represent factors. Then, we use Cronbach's Alpha test to check the reliability.

Because the sample size is quite large (422), theoretically, the factor loading factor 0.3 can meet the requirements of exploratory factor analysis. The specific EFA analysis results are as follows:

Table 2: *Exploratory factor analysis*

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.628
Bartlett's Test of Sphericity	Approx. Chi-Square	4143.603
	df	415
	Sig.	0.000

Total Variance Explained

Component		**Initial Eigenvalues**			**Extraction Sums of Squared Loadings**			**Rotation Sums of Squared Loadings**		
		Total	**% of Variance**	**Cumulative %**	**Total**	**% of Variance**	**Cumulative %**	**Total**	**% of Variance**	**Cumulative %**
dimension	1	7.609	31.703	31.703	7.609	31.703	31.703	3.922	16.342	16.342
	2	4.002	16.676	48.379	4.002	16.676	48.379	3.356	13.982	30.325
	3	3.164	13.184	61.564	3.164	13.184	61.564	3.255	13.562	43.886
	4	2.103	8.762	70.325	2.103	8.762	70.325	3.245	13.521	57.407
	5	1.160	4.835	75.161	1.160	4.835	75.161	2.949	12.289	69.697
	6	1.106	4.609	79.770	1.106	4.609	79.770	2.418	10.073	79.770
	7	0.559	2.331	82.101						
	8	0.502	2.092	84.193						
	9	0.476	1.984	86.176						
	10	0.403	1.681	87.857						
	11	0.355	1.477	89.334						
	12	0.321	1.337	90.671						
	13	0.306	1.277	91.948						
	14	0.291	1.211	93.159						
	15	0.285	1.188	94.347						
	16	0.266	1.108	95.455						
	17	0.242	1.007	96.462						
	18	0.177	0.739	97.201						
	19	0.158	0.659	97.860						
	20	0.141	0.586	98.446						
	21	0.127	0.527	98.973						
	22	0.112	0.465	99.439						
	23	0.087	0.364	99.802						
	24	0.048	0.198	100.000						

Extraction Method: Principal Component Analysis.

Rotated Component Matrix[a]

	Component					
	1	**2**	**3**	**4**	**5**	**6**
SP2	0.850					
SP4	0.830					
SP3	0.816					
SP1	0.807					
SP5	0.791					
SE1		0.924				
SE4		0.897				
SE2		0.871				
SE3		0.869				
MH3			0.866			
MH4			0.864			
MH2			0.832			
MH1			0.783			
LP2				0.884		
LP3				0.863		
LP4				0.799		
LP1				0.778		
AS4					0.805	
AS3					0.802	
AS2					0.788	

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.628
Bartlett's Test of Sphericity	Approx. Chi-Square	4143.603
	df	415
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Total Variance Explained

Component		Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
		Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
dimension	1	7.609	31.703	31.703	7.609	31.703	31.703	3.922	16.342	16.342
	2	4.002	16.676	48.379	4.002	16.676	48.379	3.356	13.982	30.325
	3	3.164	13.184	61.564	3.164	13.184	61.564	3.255	13.562	43.886
	4	2.103	8.762	70.325	2.103	8.762	70.325	3.245	13.521	57.407
	5	1.160	4.835	75.161	1.160	4.835	75.161	2.949	12.289	69.697
	6	1.106	4.609	79.770	1.106	4.609	79.770	2.418	10.073	79.770
	7	0.559	2.331	82.101						
	8	0.502	2.092	84.193						
	9	0.476	1.984	86.176						
	10	0.403	1.681	87.857						
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	21	0.127	0.527	98.973						
	22	0.112	0.465	99.439						
	23	0.087	0.364	99.802						
	24	0.048	0.198	100.000						

AS1	0.757	
IT1		0.853
IT3		0.850
IT2		0.834

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

Source: Author's calculation

According to the analytical result, the KMO index is 0.628. Thus, data is suitable for factor analysis. Bartlett's test of the study has a sig value of 0.000 (less than 0.05); thus, we can conclude that the observed variables are linearly correlated with the representative factor. A cumulative index (%) is 79.77% means the observed variables explain 79.77% of the variation in factors. The Rotated Component Matrix table shows that all feature variables have factor loading factors greater than 0.3. After grouping the variables, we choose names for the factors (groups) and reset the variable code accordingly. We use Cronbach's Alpha test to test the scale's reliability. The scoring results are shown in the following table:

***Table 3:** Test for reliability*

No.	Scale	Cronbach's Alpha
1	Supporting policies (SP)	0.819
2	Stakeholders engagement (SE)	0.810
3	Management capacity and human resources (MH)	0.798
4	Local potential (LP)	0.804
5	Awareness and socio-economic conditions (AS)	0.841
6	Infrastructure and transportation (IT)	0.737
7	Green tourism development (GT)	0.809

Source: Author's calculation

The Cronbach's Alpha test results show that all factors affecting green tourism development in Thai Nguyen province are accepted. All the indicators are reliable and highly representative. The results of the impact analysis of factors affecting green tourism development in Thai Nguyen province are shown in the table below:

***Table 4:** Model summary*

Coefficient of correlation (R)	Coefficient of determination (R-Square)	Std. Error of the Estimation	Durbin-Watson
0.782	0.612	0.315	2.225

Source: Author's calculation

The coefficient of determination reflects the ability of the dependent variable to be interpreted by the independent variables. Accordingly, 61.2% of the change in green tourism development in Thai Nguyen province is due to 06 factors proposed by the model. With the Durbin-Watson test result of 2,225, the model does not have autocorrelation.

***Table 5:** ANOVA Analysis*

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	67.488	6	11,248	52.315	0.000
Residual	89.225	415	0.215		
Total	156.713	421			

Source: Author's calculation

The results of the F-test show that the regression model has statistical significance with 95% confidence. Regression results of factors affecting green tourism development in Thai Nguyen province are shown in the table below.

***Table 6:** Regression results*

Independent variables	Beta coefficient	t	p-value	Collinearity statistics	
				Tolerance	VIF
Constant	-0.369	6.825	0.000		
SP	0.120	2.124	0.034	0.334	2.992
SE	0.142	2.588	0.010	0.419	2.386
MH	0.259	4.038	0.000	0.438	2.283
LP	0.379	5.365	0.000	0.637	1.570
AS	0.097	3.445	0.000	0.198	5.049
IT	0.114	6.293	0.000	0.253	3.960

Source: Author's calculation

Student's test of all six proposed factors reached the 95% statistical significance level (p-value < 0.05). The VIF index less than 10 proves that the model does not have multicollinearity. The analysis results show that all six factors positively influence the development of green tourism in Thai Nguyen province. Specifically, for external factors, government and local supportive policies are essential in promoting green tourism development in Thai Nguyen province. In fact, investing in green tourism is a long-term investment, and it is not easy to get short-term benefits. Therefore, support of the policy, especially the credit policy in early business, is vital. The locality's potential is an important factor in developing green tourism because this type of tourism combines natural exploitation and environmental protection. Areas with beautiful landscapes, distinctive cultures, and numerous traditional products will have good opportunities to develop green tourism. Infrastructure and transportation are crucial. To develop green tourism, it is necessary to have modern accommodation facilities, convenient transportation, and specialty restaurants. These factors are necessary to attract tourists.

On the business side, management skills and human resources are fundamental to developing green tourism. This is also a limitation that Thai Nguyen province tourism businesses are facing. Coordinating stakeholders is important because green tourism needs the efforts of people, businesses and management agencies. Last but not least, the awareness of the importance of green tourism is the key point. Green tourism is the future of tourism, a trend in developed countries. In Vietnam, green tourism is only in the early stages of development; hence, we must prepare and develop a development plan as soon as possible.

5. Conclusions

Through surveying 422 managers, businesses, experts and tourists, using a multivariate regression tool, the study analyzed the influence of 06 factors on green tourism development in Thai Nguyen province, including Supporting policies, stakeholders engagement, Management capacity and human resources, Local potential, Awareness and socio-economic conditions, Infrastructure and transportation. The analysis results show that these proposal factors all positively influence the province's green tourism development. In order to promote green tourism development in the near future, Thai Nguyen province's leaders may consider implementing some solutions. Firstly, people, businesses and local authorities must raise awareness of the importance of green tourism. In particular, we need to educate and train the community on green tourism development, especially in tourist areas. Secondly, we should increase the use of recycled materials, natural materials and protect the environment. Local authorities must develop programs to preserve and propagate the folklore of ethnic groups in tourism development. Thirdly, the government and local authorities should develop policies to support green tourism development, especially preferential credit policies. Fourthly, citizens, management agencies and businesses should actively apply the achievements of the 4.0 industrial revolution to the management of green tourism development. Fifthly, local authorities need to strengthen advertising and promote green tourism domestically and internationally. The role of marketing is crucial. Overall, it is not easy to develop green tourism; however, it is the future of sustainable tourism development, contributing to the country's economic development.

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Ngày nhận bài: 17/6/2023
Ngày nhận bản sửa: 23/6/2023
Ngày duyệt đăng: 29/6/2023