

# FACTORS AFFECTING FAST AND SUSTAINABLE DEVELOPMENT OF TOURISM SERVICE INDUSTRY IN BAC GIANG PROVINCE

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## ABSTRACT

*Fast and sustainably developing tourism services is one of the important goals of Bac Giang province in the period of 2021-2030, with a vision to 2050. To proactively build a developing direction which is suitable to the context and situation of the local, the research team proposes a model of 9 factors affecting the development of tourism industry in Bac Giang province. After conducting regression analysis to show the relationship between independent and dependent variables, the research results show that all 9 factors have a positive impact on the development of the fast and sustainable tourism service industry including: Natural tourism resources; Tourism human resources; Tourism products; Infrastructure and technical facilities for tourism; Tourism destination management; Tourism Enterprises; Price; Involvement of local communities in tourism; The role of authorities' policies.*

**Keyword:** Service, tourism, development, sustainability

## 1. INTRODUCTION

Bac Giang province's planning for period 2021 – 2030 with vision to 2050 emphasizes the viewpoint of developing a diversified, modern and sustainable service industry, a number of potential and advantageous services, especially making tourism becoming an important economic sector. Bac Giang province determines to develop the tourism service industry in the direction of exploiting its potential, developing sustainable tourism, making tourism occupy an increasing proportion in the economic structure, gradually stand an important position in the field of services, creating a driving force to promote socio-economic development in association with image promotion and brand building.

Sustainable tourism is the continuous process of making optimal use of environmental resources, paying more respect for indigenous communities and ensuring viable long-term economic activities. In order to develop tourism quickly, it is necessary to focus on effective investment and exploitation, but to develop a sustainable tourism industry, it is in need to study the combined impact factors so that the optimal plan for the locality can be built up to balance quantity and quality of tourism industry.

Therefore, studying the factors affecting the rapid and sustainable development of the tourism service industry in Bac Giang province plays an important role in contributing the theoretical basis as well as the practical model for the locality towards the rapid and sustainable development of the service industry in general in the coming time.

## 2. RESEARCH MODEL AND METHODS

### 2.1. Proposed research model

The proposed research model includes 9 factors affecting the rapid and sustainable development of the tourism service industry in Bac Giang province, including: natural tourism resources, tourism human resources, tourism products, tourism infrastructure and technical facilities, tourism destination management, tourism enterprises, prices,

participation of local communities in tourism, the role of policies. To examine the impact of each of these factors affecting the rapid and sustainable development of the tourism service industry in Bac Giang province, the authors tested the correlation among 9 independent variables and the dependent variable which is tourism industry development

## 2.2 Research method

After removing invalid questionnaires, the samples size was 152 questionnaires.

To measure the level of concepts in the research, the authors use the Likert scale with 5 levels: (1)-Totally disagree; (2)-Disagree; (3)-Neutral; (4)-Agree; (5)-Totally agree. In order to test the factors included in the research model, the research team used SPSS 20 software to carry out this study.

## 3. RESEARCH'S RESULTS

### 3.1 Test confidence level of the data

To evaluate the confidence of the factors included in the model, the authors first test the confidence of the scale

**Table 1-** Results of testing the confidence of independent variables

Observable variables	Corrected item – Total Correlation	Cronbach' s Alpha if item deleted
<b><i>Natural tourism resources: Cronbach' s Alpha = .827</i></b>		
Heritage, unique natural wonders	.563	.840
Favorable weather	.604	.808
Diverse traditional culture	.732	.745
Diverse and rich cuisine	.769	.730
<b><i>Tourism human resource: Cronbach' s Alpha = .872</i></b>		
Appropriate professional ability	.755	.824
Fluent foreign language	.762	.824
Good soft skills	.777	.815
Good moral qualities	.621	.878
<b><i>Tourism products: Cronbach' s Alpha = .878</i></b>		
Diverse tourism products	.783	
Unique tourism products	.783	
<b><i>Tourism infrastructure: Cronbach' s Alpha = .912</i></b>		
The system of accommodation facilities is diverse and up to standards	.761	.899
System of diverse and qualified dining establishments	.794	.899
The system of entertainment facilities is diverse and attractive	.911	.845
System of diverse shopping facilities	.797	.896
<b><i>Tourism destination management: Cronbach' s Alpha = .859</i></b>		
Well protect and preserve the environment	.666	.837
Ensuring security and social order	.652	.842
Ensure the safety of food, life and property for visitors	.758	.804
Receive and properly handle complaints from visitors	.779	.795
<b><i>Tourism enterprises: Cronbach' s Alpha = .866</i></b>		
Tourism enterprises with business ethics	.769	
Tourism enterprises support tourists throughout the journey	.769	

<b>Price: Cronbach's Alpha = .885</b>		
The price is commensurate with the quality of products and services	.747	.863
Flexible pricing policy	.852	.769
Warranties for purchased items	.739	.875
<b>Participation of local communities in tourism: Cronbach's Alpha = .934</b>		
Local people are friendly and hospitable	.826	.934
Locals help tourists	.904	.873
Local people are conscious of protecting the environment and developing local tourism	.864	.904
<b>The role of policies: Cronbach's Alpha = .953</b>		
Incentive policies on land use	.840	.952
Credit support policy	.872	.943
Policies to support human resource development	.928	.926
Policy to support market development	.910	.931

(Source: Survey)

The results of the independent variable test in Table 1 show that the corrected item total correlation coefficients are all greater than 0.3, the Cronbach's Alpha value if the type of small observable variables is lower than the Cronbach's Alpha value of each big observable variable. Therefore, the observable variables are suitable for the next research period.

**Table -2:** Results of testing the confidence of dependent variables

Observable variables	Corrected item – Total Correlation	Cronbach's Alpha if item deleted
<b>Tourism development: Cronbach's Alpha = .910</b>		
Contributing to the economic growth of the province	.742	.898
Contribute to efficient use of resources	.727	.899
Local people get more jobs and job opportunities from tourism business	.768	.890
Contributing to the preservation of traditional cultural values	.809	.883
Contributing to the conservation of natural resources	.835	.876

(Source: Survey)

The test result of the dependent variables in Table 2 show that the confidence level of the scale is 0.910; the corrected item total correlation coefficients are all greater than 0.3, the Cronbach's Alpha value if all variables deleted are less than 0.910. Therefore, the observable variables are suitable for the next research period.

### 3.2. Factors analysis

Exploratory factor analysis to discover observed variables loaded with multiple factors or observed variables with factor difference from the beginning

**Table -3:** Results of testing the confidence of dependent variables

Observable variables	The factor loading coefficients	Tested value
<b>Natural tourism resources:</b>		
Heritage, unique natural wonders	.733	Eigen = 2.702
Favorable weather	.782	KMO = .790
Diverse traditional culture	.870	Bartlett, Sig. = .000

Diverse and rich cuisine	.893	The explanatory level of the observed variables = 67.55%
<b><i>Tourism human resource:</i></b>		
Appropriate professional ability	.871	Eigen = 2.906
Fluent foreign language	.879	KMO = .785
Good soft skills	.887	Bartlett, Sig. = .000
Good moral qualities	.768	The explanatory level of the observed variables = 72.66%
<b><i>Tourism products:</i></b>		
Diverse tourism products	.944	Eigen = 1
Unique tourism products	.944	KMO = .5
		Bartlett, Sig. = .000
		The explanatory level of the observed variables = 89.2%
<b><i>Tourism Infrastructure:</i></b>		
The system of accommodation facilities is diverse and up to standards	.870	Eigen = 3.225
System of diverse and qualified dining establishments	.887	KMO = .78
The system of entertainment facilities is diverse and attractive	.949	Bartlett, Sig. = .000
System of diverse shopping facilities	.883	The explanatory level of the observed variables = 80.62%
<b><i>Tourism destination management:</i></b>		
Well protect and preserve the environment	.814	Eigen = 2.840
Ensuring security and social order	.793	KMO = .791
Ensure the safety of food, life and property for visitors	.873	Bartlett, Sig. = .000
Receive and properly handle complaints from visitors	.887	The explanatory level of the observed variables = 71%
<b><i>Tourism Enterprises:</i></b>		
Tourism enterprises with business ethics	.769	Eigen = 1.769
Tourism enterprises support tourists throughout the journey	.769	KMO = .5
		Bartlett, Sig. = .000
		The explanatory level of the observed variables = 88.46%
<b><i>Price:</i></b>		
The price is commensurate with the quality of products and services	.888	Eigen = 2.448
Flexible pricing policy	.940	KMO = .702
Warranties for purchased items	.880	Bartlett, Sig. = .000
		The explanatory level of the observed variables = 81.6%

<b>Participation of local communities in tourism:</b>		
Local people are friendly and hospitable	.920	Eigen = 2.653
Locals help tourists	.959	KMO = .743
Local people are conscious of protecting the environment and developing local tourism	.941	Bartlett, Sig. = .000
		The explanatory level of the observed variables = 88.43%
<b>The role of policies:</b>		
Incentive policies on land use	.907	Eigen = 3.512
Credit support policy	.928	KMO = .845
Policies to support human resource development	.961	Bartlett, Sig. = .000
Policy to support market development	.951	The explanatory level of the observed variables = 87.79%
<b>Tourism development:</b>		
Contributing to the economic growth of the province	.833	Eigen = 3.696
Contribute to efficient use of resources	.828	KMO = .785
Local people get more jobs and job opportunities from tourism business	.850	Bartlett, Sig. = .000
Contributing to the preservation of traditional cultural values	.887	The explanatory level of the observed variables = 73.93%
Contributing to the conservation of natural resources	.898	

(Source: Survey)

Natural tourism resources scale converges on 1 common factor; The factor loading coefficients  $>0.5$  are considered significant; KMO value  $> 0.5$  shows that factor analysis is appropriate; Bartlett's test is statistically significant so the observed variables are correlated with each other in the population; The explanatory level of the observed variables is high, reaching a value of 67.55%

Tourism human resources scale converges on 1 common factor; The factor loading coefficients  $>0.5$  are considered significant; KMO value  $> 0.5$  shows that factor analysis is appropriate; Bartlett's test is statistically significant so the observed variables are correlated with each other in the population; The explanatory level of the observed variables is high, reaching a value of 72.66%.

Tourism products scale converges on 1 common factor; The factor loading coefficients  $>0.5$  are considered significant; KMO value  $> 0.5$  shows that factor analysis is appropriate; Bartlett's test is statistically significant so the observed variables are correlated with each other in the population; The explanatory level of the observed variables is high, reaching a value of 89.2%.

Tourism Infrastructure scale converges on 1 common factor; The factor loading coefficients  $>0.5$  are considered significant; KMO value  $> 0.5$  shows that factor analysis is appropriate; Bartlett's test is statistically significant so the observed variables are correlated with each other in the population; The explanatory level of the observed variables is high, reaching a value of 80.62%.

Tourism destination management scale converges on 1 common factor; The factor loading coefficients  $>0.5$  are considered significant; KMO value  $> 0.5$  shows that factor analysis is appropriate; Bartlett's test is statistically significant so the observed variables are correlated with each other in the population; The explanatory level of the observed variables is high, reaching a value of 71%.

Tourism enterprises scale converges on 1 common factor; The factor loading coefficients  $>0.5$  are considered significant; KMO value  $> 0.5$  shows that factor analysis is appropriate; Bartlett's test is statistically significant so the

observed variables are correlated with each other in the population; The explanatory level of the observed variables is high, reaching a value of 88.46%.

Price resources scale converges on 1 common factor; The factor loading coefficients  $>0.5$  are considered significant; KMO value  $> 0.5$  shows that factor analysis is appropriate; Bartlett's test is statistically significant so the observed variables are correlated with each other in the population; The explanatory level of the observed variables is high, reaching a value of 81.6%.

Involvement of local communities in tourism scale converges on 1 common factor; The factor loading coefficients  $>0.5$  are considered significant; KMO value  $> 0.5$  shows that factor analysis is appropriate; Bartlett's test is statistically significant so the observed variables are correlated with each other in the population; The explanatory level of the observed variables is high, reaching a value of 88.43%.

The role of authorities' policies scale converges on 1 common factor; The factor loading coefficients  $>0.5$  are considered significant; KMO value  $> 0.5$  shows that factor analysis is appropriate; Bartlett's test is statistically significant so the observed variables are correlated with each other in the population; The explanatory level of the observed variables is high, reaching a value of 87.79%.

Tourism development scale converges on 1 common factor; The factor loading coefficients  $>0.5$  are considered significant; KMO value  $> 0.5$  shows that factor analysis is appropriate; Bartlett's test is statistically significant so the observed variables are correlated with each other in the population; The explanatory level of the observed variables is high, reaching a value of 73.93%..

### 3.3. Regression Analysis

In order to evaluate the influence of concerned factors to the rapid and sustainable development of tourism service industry in Bac Giang province, the research team decided to carry out regression analysis based on below linear model:

$$PTDL = \beta_0 + \beta_1TN + \beta_2NL + \beta_3SP + \beta_4CSHT + \beta_5QLDD + \beta_6DN + \beta_7GC + \beta_8TG + \beta_9CS$$

To be specific: HL is the dependent variable

TN, NL, SP, infrastructure, QLDD, DN, GC, TG, CS: Independent variables

$\beta_i$ : regression parameters (with  $i=0,1,\dots,9$ )

**Table – 5:** Result of multivariate regression

Independent Variables	Correlation Coefficient $\beta$	Sig	VIF
Constant	2.135	.000	
TN	.134	.090	2.959
NL	.422	.000	3.243
SP	.002	.979	4.610
CSHT	.300	.000	3.223
QLDD	.248	.008	3.212
DN	.217	.001	1.696
GC	.177	.043	3.865
TG	.046	.535	4.248
CS	.223	.002	3.485
R value	.671		
Durbin-Watson	1.717		
ANOVA	sig. = .000		

(Source: Survey)

This result in:  $R^2 = 0.671$ ;  $R^2$  value shows that independent variables in given model are able to give explanation to 67.1% of the changes of dependent variable.

In order to verify the autocorrelation of population regression model, Durbin-Watson statistics in the regression analysis table is taken into consideration. Since the overall number of observations is 152 samples, the number of

independent variables is 9, the significance level is 0.05, so the values  $dL=1,501$  and  $du=1,752$ , therefore, Durbin-Watson value 2.053 will stay at the average of  $\{du=1.752,4-du=2.248\}$ . This leads to the conclusion that the regression model does not violate autocorrelation.

To test the suitability of the overall regression model, we consider to the F value from the ANOVA analysis table. It can be seen that the the sig value = 0.000, initially shows that the multiple linear regression model matches the data set and is available to use.

To test the multicollinearity phenomenon, we consider the VIF value in the regression results table, it can be concluded that the variance inflation factor (VIF) of each independent variable has a value less than 10, proving that the regression model does not violate the phenomenon of multicollinearity, which means the independent variables are not strongly correlated with each other.

Also based on the results of multivariable regression, it shows that all 9 independent variables of the model have the  $p\_value < 0.05$ , in addition, the regression coefficients  $\beta$  are all greater than 0, so it is concluded that the independent variables are all significant and affects the dependent variable which is people's satisfaction with the quality of public services.

According to the results of above table, the multiple regression equation is determined:

***The Tourism development = 2.153 + 0.134\* Natural tourism resources + 0.422\* Tourism human resources + 0.002\* Tourism products + 0.3\*Tourism Infrastructure + 0.248\* Tourism destination management + 0.217\* Tourism Enterprises + 0.177\* Price + 0.046\* Involvement of local communities in tourism + 0.223\* The role of authorities' policies***

In conclusion, all 9 mentioned factors have influence on the rapid and sustainable development of the tourism service industry in Bac Giang province.

#### 4. CONCLUSIONS

Research results show that in order to develop the rapid and sustainable the tourism service industry in Bac Giang province, local authorities need to have a comprehensive impact on issues such as: Focus on efficient and sustainable exploitation of natural tourism resources; Improving the quality of human resources for tourism, paying special attention to improving the skills and qualities of the local communities participating in local tourism development, regularly opening training courses on the model of building sustainable tourism associated with nature and local cultural heritages conservation; To develop local tourism products that are increasingly diversified with high quality, famous brands; In addition, it is necessary to invest in tourism infrastructure and technical facilities, strengthen information technology applications, ensure the hygiene of the green, clean and beautiful environment; Strengthen security and order, tighten discipline to serve the people to avoid the occurrence of robberies in the locality, timely prevent the tourists ripping off; Strengthening the inspection and management of tourism organization companies, timely grasping all people's complaints on business enterprises that violate the law, sell tourism products that are fake, poor quality goods; Actively advertise and disseminate to the people about the benefits gained from the effective and sustainable exploitation of local tourism; always ready to receive people's comments and suggestions in any forms and have a timely and satisfactory response mechanism; Establish open and modern policies mechanisms to promote citizens and attract businesses to cooperate with local authorities in developing the tourism service industry in a rapid and sustainable direction.

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