

AN ANALYSIS OF THE FACTORS AFFECTING ON DOMESTIC TOURIST SATISFACTION FOR QUALITY OF SERVICES IN SAM MOUNTAIN NATIONAL TOURISM AREA, AN GIANG PROVINCE

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Abstract. This research was conducted in Sam Mountain National Tourism Area (SMNTA), An Giang province in order to evaluate the factors influencing on the domestic tourist's satisfaction for quality of tourist services. There were 150 domestic tourists interviewed with the questionnaire of 19 preset variables. The analysis models with Exploratory Factor Analysis (EFA) and Multiple Linear Regression Analysis (MLRA) were both applied in. The result shows that, in all of factors categorized into four following groups: (1) Infrastructure, (2) Labour, (3) Tourism activities, (4) Supplemental elements, the group 2 – Labour has the highest score of the process, accounting for 34.9% of the variation of dependent variable (satisfaction), meaning that it has the strongest influence on domestic tourist's satisfaction for tourist services. The group 3 – Type of activities, and 1 - Infrastructure explain 31.9% and 20.3% of the variation of dependent variable respectively. The group of factors 4 – Supplemental elements has less affecting tourist's satisfaction, only accounts for 11.5%.

Keywords: Tourist' satisfaction, EFA, MLRA, Sam Mountain National Tourism Area, An Giang province.

1. Introduction

According to recent researches in field study of tourism, the case study of “tourist satisfaction for quality of services” has been more paid attention by many researches due to its extremely crucial for tourism development. Related to tourist satisfaction, identifying of the factors affecting on tourist satisfaction is first stage and need to deeply analyze. Based on the diversified of factors affected on the tourist satisfaction, there have been more studies in the word focusing on identifying the evaluated indicators and models system in order to apply for individual tourist sites or areas. Hanqun Song & Catherine Cheung (2010) illustrate that four factors are identified to have affected tourist satisfaction included “Performance,” “Venue Environment,” “Service,” and “Stage Facilities”. These theatrical performance factors are examined to assess the relative influence on tourist overall satisfaction. Tourists have the highest satisfaction with “Stage

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Facilities” among all factors; however, “Service” is the most influential predictor of tourist overall satisfaction [1]. Suthathip Suanmali (2010) indicates that the most significant factor affecting the overall satisfaction is the cost of staying, and other significant factors are hospitality, attractions and accessibility, and infrastructure [2]. Weisheng Chiu, Shiheng Zeng and Philip Shao-Tung Cheng [3] in their study “Social–ecological factors influencing tourist satisfaction in three ecotourism lodges in the southeastern Peruvian Amazon” found three typologies of tourists, differing by several socio-economic and cultural factors, and by their motivations. The research of Muhamad Ariza Eka Yusendra and Niken Paramitasari (2018) also showed that there were 38 attributes affecting the domestic tourist satisfaction in Indonesia [4].

In Vietnam recent years, there have also been many authors applying in evaluated indicators for analysis of factors on tourist satisfaction for quality of service. Cong Chi Le and Dam Xuan Dong, in their own research (2012), found that the biggest factor affecting European tourist’s satisfaction was the friendliness and hospitality of the local people in Nha Trang city [5]. In 2015, Mai Ngoc Khuong and Pham Dac Luan [6] identify key factors affecting tourist’s perceived value as well as their satisfaction towards Cat Tien National Park, and the results revealed four main factors include price, ecology and landscapes, natural atmosphere and social environment. In another deep analysis of that field study, Mai Ngoc Khuong and Pham Anh Nguyen highlight that tourists’ return intention was affected directly and indirectly by tourist destination satisfaction following by recreations and entertainments, natural environment and cultural and historical attractions [7].

For An Giang province in general and SMNTA in particularly, there have been fewer studies on identifying the factors affecting on tourist satisfaction in recent years. For An Giang province, researches only focus on reality of An Giang tourism development [8], sustainable development of rural tourism [9]. Related to tourists satisfaction, there are the research of “Factors affecting the tourists’ satisfaction at traditional trade village tourist place in Bay Nui, An Giang province” by Hua Ngoc Thuy Trang and Nguyen Huu Dang [10]. For Sam Mountain area, Linh, T. D., & Minh, D. D (2019) with *The influence of practicing spiritual tourism on the environment in Chau Doc – An Giang – Viet Nam* [11]. Thang P Nguyen proposed applying AHP to evaluate the tourist attractions in An Giang province with SMNTA [12]. However, these researches are mainly evaluated current situation, based on general indicators for individual area, there is no comprehensive evaluation of the factors affecting on tourist satisfaction for service with complex indicators for SMNTA. Therefore, the measurement of factors for tourist satisfaction for quality of service in SMNTA with applying of EFA and MLRA is an important point of our study and a practical and meaningful research.

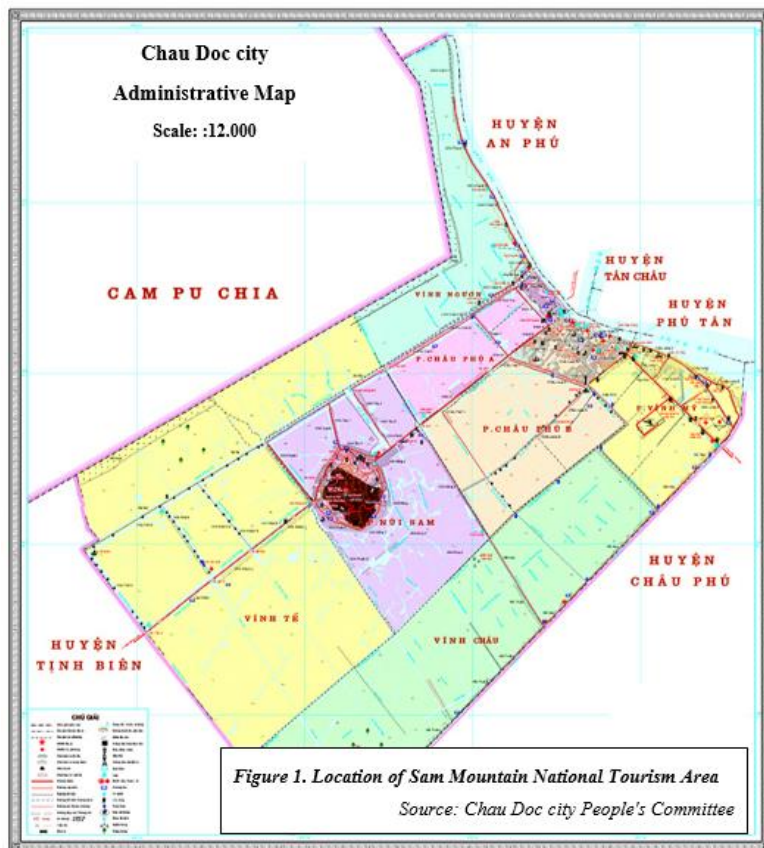
2. Content

2.1. Research area and research method

2.1.1. Research area

Located in the Nui Sam precinct of Chau Doc city, An Giang province, SMNTA has been considered as the core of tourism area in the West of An Giang province and

Mekong Delta region [8], attracting numerous tourists every year, accounts 70% of total tourists visited to An Giang province [13]. The Sam Mountain sits 280 meters above the sea level, just a few kilometers the west of Chau Doc city. As one of the major tourist attractions in An Giang province, the area entices visitors with its magnificent landscape and seascape and 200 temples, pagodas, and shrines scattered from the mountain's foot to its peak. The holiest site among them is a temple worshipping the Local Tutelary Goddess, which draws crowds of pilgrims who come to pray for peace. According to the master plan for An Giang tourism development to 2030, the area will focus on developing eight main functional parts, including old urban area to preserve the Chau Doc traditional architecture and culture; public works area with the combination of housing and services; areas of cultural tourist park, entertainment, sport; ecotourism area with tourist services; area of tourist accommodation establishments; ecological tourist resort area; eco-farm integrated resort; and cultural and spiritual tourism area, Sam Mountain Festival [13].



2.1.2. Research method

In this research, the qualitative research methods have been employed. The secondary data was collected from statistical and annual reports of AGDCST [8]. For primary data, the survey was conducted in SMNTA with random interviews of 150 domestic tourists. Data thus was processed and analyzed by SPSS software, declaring variables (name, type, label, values, missing, and measure), removing missing values, outliers and extreme values.

Table 1. Variables of research

Construct	Variables	Code
Infrastructure	Road	HT1
	Bus park	HT2
	Toilet	HT3
	Hotel, hostel	HT4
	Communication	HT5
	Electricity, water supplied	HT6
Labour	Staffs	LĐ1
	Locals	LĐ2
	Professional leaders	LĐ3
Type of services	Souvenir	LH1
	Cuisine	LH2
	Entertainment	LH3
Supplemental elements	Price	MT1
	Prohibit	MT2
	Sanitary	MT3
	Environment	MT4
	Linking ability	MT5
	Landscape	MT6
	<i>Tourists satisfaction</i>	Y

In this stage, 19 variables were declared (detail in table 1), but there were only 18 eligible variables including 1 dependent variable (coded as Y) and 17 independent variables (coded as different between 4 groups) that used in data analysis. The rest (coded MT5) is moderating variables. The EFA and MLRA are following applied in next stage. EFA was employed in order to group 17 variables into meaningful sub-sets of factors and to identify the most significant variables and meaningful sub-sets of factors to perform further data analysis with multiple linear regression model. The MLR model was applied to explore the relationship between a dependent variable and independent variables. The regression results were to identify the influence of each factor on dependent variable (domestic tourist’s satisfaction). To find out the factors and level of effect, MRLA is done following with the formula below:

$$Y = \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \dots + \beta_nX_n + e \text{ (1) [14]}$$

Where: Y: *Independent variables*

X1, X2, X3, X4, Xn: *Dependent variable*

β_i : *Weight*

2.2. Finding and discussion

2.2.1. Descriptive statistic

The total number of respondents is 150. All of characteristics of respondents is showed details in the Table 2.

Table 2. Characteristics of Respondents

Characteristics of Respondents	Frequency (People)	Percentage (%)
Gender		
(1) Male	65	43.3%
(2) Female	85	56.7%
Age		
(1) < 22 years old	39	26.0%
(2) 22 - 35 years old	53	35.3%
(3) 36 - 60 years old	33	22.0%
(4) > 60 years old	34	22.7%
Education		
(1) High school	60	40.0%
(2) Diploma	45	30.0%
(3) Bachelor	35	23.3%
(4) Postgraduate	10	6.7%
Occupation		
(1) Students	8	5.3%
(2) Public Employees	96	64.0%
(3) Entrepreneur	28	18.7%
(4) Others	18	12.0%

2.2.2. Exploratory Factor Analysis

2.2.2.1. Cronbach's Alpha and Corrected Item - Total Correlation test

Cronbach's Alpha and Corrected Item - Total Correlation both had used to assess the reliabilities for 4 groups of factors. According to Hoang Trong, Chu Nguyen Mong Ngoc (2008), the Cronbach's Alpha of global variable should be more than 0.6, and 0.3 for the Corrected Item -Total Correlation in EFA [14]. The data in table 3 shows that the Cronbach's Alpha of global variables is 0.838, and the Cronbach's Alpha of each variable including infrastructure, labour, type of services and supplemental elements also are more than 0.6, be available with 0.834, 0.810, 0.734 and 0.733 respectively. This means that all of factors gets threshold acceptable in explanatory research. Also, the Corrected Item -Total Correlation of the whole variables (except of MT5) is higher than 0.3, so that all of these are accepted for the next EFA evaluation.

Table 3. Cronbach's Alpha

	Total	Infrastructure	Labour	Type of services	Supplemental elements
Cronbach's Alpha	0.838	0.834	0.810	0.734	0.733

After conducting Cronbach's Alpha and Corrected Item on 18 observed variables by the gradually removing process, there are last 17 variables satisfying the requirements of factor analysis.

2.2.2.2. Keiser – Meyer – Olkin (KMO) test

The test of KMO ratio for sampling adequacy was adopted. According to Hoang Trong & Chu Nguyen Mong Ngoc (2008) [14], KMO ratio ranging from 0.5 to 1.0 could be appropriate and accepted in the factor analysis. The factor loading index more than 0.5 could be considered as most appropriate [15]. Gerbing & Anderson (1988) said that if the significance in Bartlett’s Test has less than 0.05, independence variables will be best strong relation with each other [16].

The result of test KMO is presented in table 4.

Table 4. KMO

Kaiser – Meyer - Olkin Measure of Sampling Adequacy		0.872
Bartlett's Test of Sphericity	Approx. Chi-Square	1159.357
	df	136
	Sig.	.000

Data in table 4 highlights that KMO ratio is 0.872, higher than 0.5. This means that EFA method is appropriate to the data set. The significance in Bartlett’s Test is 0.000 less than significant level of 0.05 which suggests that observed variables are correlated together or at least 1 pair of observed variables is really correlated.

In the table Rotated Component Matrix (Table 5), all of factors has loading index more than 0.5. Thus, no variables is out of the evaluating measure.

Table 5. Rotated Component Matrixa

	Component			
	1	2	3	4
HT2	.721			
HT6	.687			
HT4	.676			
HT5	.673			
HT3	.671			
HT1	.620			
MT4	.541			
LD2		.772		
LD3		.710		
LD1		.706		

MT5		.688		
LH1			.784	
LH2			.742	
LH3			.669	
MT2				.880
MT1				.632
MT3				.627

2.2.3. Multiple Linear Regression analysis

- Adjusted R-square is used to reflect fitness of the model. The higher adjusted R² is, the more relevant the model has (Table 6).

Table 6. Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.791 ^a	.626	.616	.468	1.615

The data in table 6 shows that Adjusted R-square = 0.616. This means four groups of factors in this model explain 61.6% of variation of dependent variables, and the last 38.4% of variation is explained by other factors which not available in the model.

- F-test is one of the tests analyzing the fitness of model. In order to determine whether there are significant relationships between independent variables (four groups of factors) and the dependent variable (domestic tourist satisfaction), F-test is executed (Table 7).

Table 7. ANOVA^b

	Model	Sum of quares	df	Mean quare	F	Sig.
1	Regression	53.175	4	13.294	60.645	.000 ^a
	Residual	31.785	145	.219		
	Total	84.960	149			

The data mentioned in the Table 7 shows that, with F = 60.6 and Sig = 0.000 < 0.01, the model of MLRA is appropriate and be able to use for this analysis.

- Variance inflation factor (VIF): VIF ratio of four groups of factors is equal 1 < 10, which is also a signal to test multicollinearity phenomenon. In short, it is surely recognized the model is appropriate because it does not violate multicollinearity phenomenon.

The data in Table 7 illustrates that while VIF ratio of whole of independent variables ranging is less than 10, the model does not violate multicollinearity. The significant statistic (Sig) of three groups (code as HT, LH and LD) is less than 0.01, while the rest groups (code as MT) are higher, available with 0.36, so MT is rejected out of the measure.

Table 7. Coefficientsa

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.146	.225		.646	.519		
	HT	.203	.076	.191	2.674	.008	.505	1.980
	LH	.319	.064	.312	4.956	.000	.651	1.537
	LD	.349	.070	.352	4.966	.000	.514	1.944
	MT	.115	.055	.127	2.112	.036	.709	1.410

According to Unstandardized Coefficients (Table 7) and the formula proposed (1), a multiple linear regression model is expressed as following:

$$Y = 0.146 + 0.349* LD + 0.319 LH* + 0.203*HT \quad (2)$$

Where:

Y: Satisfaction of tourists for quality of services

LD: Labours

LH: Tourism activities

HT: Infrastructure

The coefficients of the model illustrate that labours is the most influential factor on the satisfaction of tourists for service quality in the area. These related components include attitude of staff and resident, the professional of staff. Tourism activities attracting tourists including souvenir, food and others also play an important role on enhancing the satisfaction of tourists. Finally, infrastructure is also mentioned as main factor influencing on the tourists.

2.3. Discussion

- **Labour:** The coefficients of the model indicate that when the labour is considered by domestic tourists as the highest variable, and while other variables are not changed, the satisfaction will increase 0.349. In SMNTA, the number of staffs have increased rapidly in recently. The quality of labours such as their attitude and skills is remarkably improved. However, some problems such as lacking of the trained – labour should be noticed and improved. Many visitors coming to SMNTA complaining about the labours in hotels and restaurants. Lacking of trained - labour is a serious shortcoming of services system in SMNTA. Even short – training course is always designed and organized every year, the trained - labours who can fluently use and apply are not enough to serve numerous tourist’s demand. To enhance the domestic tourists’ satisfaction, the research suggest that short – term training courses should be improved, and training should be provided to workers who are already employed to work in SMNTA.

- **Tourism activities:** The coefficients of the model indicate that when the type of activities are considered as the highest variable, and in the situation that other variables are not changed, the satisfaction will increase 0.319. It is clearly the type of activities is more diversified, the domestic tourist's satisfaction is higher. Although the spiritual is the core activity in the park, the appearance of some type of tourist's activities such as sightseeing and ecotourism recently also contribute to attract a lot of tourist especially domestic tourists. To enhance the performance of tourism in the area, the local government and area's management should not only maintain the current spiritual tourism cluster but also develop heritage tourism. More importantly, there must be an appropriate plan for diversify of Type of activities.

- **Infrastructure:** Recently, the main of infrastructure in the area has been improved. Under the plan, Sam Mountain area will meet the criteria of a national tourism area before 2025, and will become a unique tourism center for spiritual culture in the Mekong Delta region by 2030. Together with Chau Doc and neighboring tourist attractions, it will be developed into an important destination of the region. To attract more than tourists and adapt tourist satisfaction, the local government should focus on investing for infrastructure and tourists services.

- **Supplemental elements:** In this evaluation, the supplemental elements such as price, prohibit, sanitary, environment, linking ability, and landscape are rejected out of the multiple linear regression model (2). However, these factors play an important role in tourist satisfaction, and in order to boost the quality of tourist's services in the area, the local government also should improve and enhance these elements. Also, advertising activities or promotional campaigns for landscapes should be held in current popular spiritual tourism destinations. The tourism department would need to have a long term plan for environment in the area as well as enhance linking ability between SMNTA and its neighbouring attractions in An Giang province.

3. Conclusions

SMNTA possess certain advantages that enable it to contract millions of tourists every year and maintain this impressive number for a decade. However, the quality of services in the park does not satisfy much more the domestic tourist's demand due to some significant factors. Based on applying the EFA and MLRA, the result shows that the variables of "Type of activities" and "labour" are strongest influential factors on the domestic tourist's satisfaction. Thus, the research suggest that to enhance the domestic tourist's satisfaction for the quality of services, there must be a plan for diversifying activities and improving the professional skills and knowledge of the labour force in the area.

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