

## AN EVALUATION OF FACTORS AFFECTING TOURIST SATISFACTION WITH SERVICE QUALITY: CASE STUDY OF SAM MOUNTAIN NATIONAL TOURIST AREA IN AN GIANG PROVINCE, VIETNAM

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**Abstract:** This study was conducted at the National Tourist Area (NTA) of Sam Mountain in Chau Doc City, An Giang Province, Vietnam. The study surveyed 150 tourists using a questionnaire to assess the factors affecting visitor satisfaction with the quality of tourist services in the Sam Mountain NTA. The responses from the questionnaire were encoded and analyzed using Cronbach's Alpha reliability coefficient, the EFA exploratory factor, and regression analysis using SPSS 26.0. The research results showed that out of the four studied factors: Labour, type, infrastructure and tourist environment, labour had the most significant impact on tourists' satisfaction when visiting the Sam Mountain NTA. The study also found that environmental factors had the least impact on tourist satisfaction. Addressing this issue requires local authorities at all levels to work together to implement solutions to improve the quality of services and meet tourists' satisfaction levels when coming to the Sam Mountain NTA.

Keywords: Sam Mountain National Tourist Area, An Giang province, tourist satisfaction, factors affecting tourists, Vietnam.

Abbreviations: National Tourist Area (NTA).

### Introduction

The tourist industry is rapidly developing and plays an essential role in the economy worldwide (Osman & Sentosa, 2013). Tourism benefits the economy and society, by providing increased revenue, creating many job opportunities and attracting significant investment capital. In addition, the tourism industry also contributes significantly to the preservation and development of the local tangible and intangible heritage. The development of the tourist industry also plays a vital role in reducing poverty and promoting the restructuring of the economy (Giao *et al.*, 2021). Indeed, travelling has many benefits, such as relieving stress, experiencing new things, and improving knowledge about the culture, tradition and cuisine of unfamiliar regions (Goliath & Yekela, 2020). Tourism activities include visiting, learning, resting, and entertainment activities at places other than a person's daily environment for a certain period (Setokoe, 2020).

Tourist satisfaction is essential for effective destination marketing because it influences the choice of destination, the use of products and services, and the decision to return (Kozak & Rimmington, 2000). In Vietnam, as the quality of life improves, tourist becomes more familiar and popular. Therefore, the quality of services is also noticed by tourists, and destinations with better quality of services are chosen (To, 2023). Beautiful and convenient facilities ensure that tourists have the best destination experience (Hung *et al.*, 2021).

Sam Mountain NTA is located in Sam Mountain Ward, Chau Doc City, An Giang province, Vietnam. Sam Mountain NTA is a place that has attracted a large number of tourists. It is about 60 km from Long Xuyen City, An Giang province, heading west along National Highway 91 and about 100 km from Can Tho International Airport. The tourist area is in an important geographical position, located

in the centre of the province's tourist district and adjacent to territories containing many unique tourist resources, such as the Tri Ton and Tinh Bien district (PCAGP, 2013). National Highway 91 also connects Sam Mountain NTA to essential tourist destinations throughout the Mekong Delta region, allowing the tourist area to be linked and developed with adjacent destinations.

The Sam Mountain NTA has Sam Mountain with an area of about 280 hectares, with a height of about 241 m. The area has many architectural works, historical and cultural relics, and beautiful landscapes, such as Bach Van Hill and Tao Ngo Garden. The Sam Mountain NTA includes attractions such as Ba Chua Xu Sam Mountain Temple, Tay An Pagoda, and Hang Pagoda (Nguyen *et al.*, 2023).

The main visitors to the Sam Mountain NTA are primarily pilgrims, festival-goers to the Ba Chua Xu Nui Sam festival, and those interested in learning about the culture and history. Every year, about five million visitors visit tourist sites from domestic and international locations (Chau, 2021). The population around the Sam Mountain tourist area is dense, and the central and surrounding areas have a diverse ethnic community consisting of the Kinh, Hoa, Cham, and Khmer peoples. The Kinh people make up the majority of the population in the tourist area. Each ethnic group has its own cultural identity, contributing to a diverse cultural life with numerous festivals, historical sites, and traditional craft villages, which are all significant resources that attract tourists.

The Sam Mountain NTA has recently developed into one of the most attractive destinations in An Giang province and the Mekong Delta region. However, the Sam Mountain NTA must be developed further to maximize its tourism potential. To meet the needs of visitors, the quality of service at Sam Mountain tourist resort needs to be improved. To achieve this, the Management Board of the Tourist Area and related parties must carefully research, survey and evaluate the factors

affecting customer satisfaction with the quality of tourist services.

## Literature Review

### *Tourist*

Tourists are individuals who travel to a destination outside their usual place of residence for a period ranging from 24 hours to less than one year, for leisure, business, or other personal purposes, excluding the purpose of working at a specific access point or country (Giao *et al.*, 2020). Tourists also stay at resorts, hotels, or other forms of accommodation, to enjoy tourist activities and experiences for a short period (Patwary *et al.*, 2021).

### *Service Quality*

Service is an activity or benefit provided for exchange, primarily intangible and not resulting in the ownership transfer. The performance of a service may or may not be linked to a tangible product (Kotler & Keller, 2012). Service quality is measured by comparing the value that customers expect before using the service and the value that customers receive after using the service. Service is an activity or a series of activities that occur when there is an interaction between two parties, the consumer and the service provider (Gronroos, 1990). Service quality is the degree of difference between consumers' expectations of service and their perceptions of the service outcome. In other words, service quality is the difference between customers' expectations and the quality they experience in the provided service (Parasuraman *et al.*, 1988). The quality of tourist services is the level of suitability of the tourist service providers to satisfy the needs of tourists in the target market (Chuchu, 2020).

### *The Satisfaction of Tourists*

The satisfaction of tourists can be increased by the criteria and expectations of tourists about the tour packages offered. Tourist organizations must define this to support their continuous efforts to balance capacity with demand and the quality

of services provided (Kandampully, 2000). The satisfaction of tourists is essential for effective destination marketing because it influences the choice of destination, the use of products, and the decision to return. Tourists' happiness is the difference between such customer expectations and the actual value. Satisfied tourists are more likely to return and encourage others to do the same, and the frequency of complaints from tourists decreases as satisfaction increases. In globalization, tourist satisfaction is the primary tool to increase tourist output. This relates to efforts to provide tourists with the resources to meet the needs of the industry. Satisfied customers can also be an excellent strategy for spreading positive word of mouth (Pavlic *et al.*, 2011). Satisfaction with tourist destinations results from the evaluation between desire and encounter (Ibrahim & Gill, 2015).

### ***Infrastructure and Tourist Satisfaction***

Many studies have addressed the close relationship between infrastructure and tourist satisfaction (Khuong *et al.*, 2020). The infrastructure component of tourist development is vital because it supports the destination's competitive advantage. Furthermore, developing adequate public infrastructure is necessary for high-quality tourist facilities at tourist destinations (Jovanovic & Ilia, 2016). Tourist infrastructure refers to the physical and technological infrastructure created by the government and tourist organizations to exploit the potential of tourism, such as hotel and residential complexes, products, amusement parks, transportation equipment, and infrastructure facilities. Infrastructure is viewed as a transportation network, including roads, railways, seaports and airports. Moreover, tourist happiness is affected by the accessibility of the location, including infrastructure, operational variables, government regulations and equipment (Virkar & Mallya, 2018). Other studies have shown that between the natural and built environment, the built environment had a significant effect on tourist satisfaction (Rahim *et al.*, 2022).

### ***Overview of the Research Sample***

In order to evaluate the factors influencing the level of tourist satisfaction with the quality of services at the Sam Mountain National Resort, a random sampling method was applied to 150 tourists through a questionnaire. The characteristics of the survey sample are shown in Table 1. The survey results showed that there is a gender imbalance in the structure of tourist customers, with females outnumbering males (accounting for 57% of the total surveyed customers). This stems from the fact that the majority of tourist customers come to the Sam Mountain NTA for spiritual and pilgrimage purposes, so the number of female visitors is higher than males. Regarding the occupation of tourist customers, students accounted for the highest proportion (64%). Other customer groups accounted for a relatively small proportion, such as business people (19%), state employees (5%), and others (12%). Tourists visiting Sam Mountain NTA mostly come during their leisure time (44%), followed by the Tet holiday (34%), and with lower percentages during summer vacation (17%) and weekends (5%). This can be explained by the fact that the surveyed tourists are mainly students who travel during their free time, on holidays and festivals. The Sam Mountain NTA has many unique and attractive festivals and spiritual rituals, which have attracted many visitors during these occasions. Among 150 survey responses collected, the results show that the majority of tourists know about the Sam Mountain NTA through recommendations from friends and family (90 people), followed by the internet (23 people), TV and radio (17 people), travel companies (11 people), and a minority from books, newspapers, and magazines (4 people), with the remaining 5 people from other sources. Therefore, it can be seen that tourists mainly know about Sam Mountain NTA through recommendations or invitations from friends and family. Promoting information about the tourist area through the media (TV, radio, books, internet) or travel agencies still needs to be improved.

Table 1: Characteristics of the survey sample

Factors	Component	Amount	Percentage
Gender	Male	65	43%
	Female	85	57%
Employment	State employees	8	5%
	Student	96	64%
	Business	28	19%
	Other	18	12%
The time for travelling	Summer vacation	25	17%
	Tet holiday	51	34%
	Leisure time	66	44%
	Weekend	8	5%
Purpose	Travelling, vacationing	93	62%
	Commerce	3	2%
	Religion, belief	39	26%
	Conference, seminar	4	3%
	Visit relatives	8	5%
	Others (please specify)	3	2%
Information source	Friends, relatives	90	60%
	TV, radio	17	11%
	Travel company, tour operator	11	7%
	Books, newspapers, magazines	4	3%
	Internet	23	15%
	Others (please specify)	5	4%

(Source: Data analysis results from direct tourist survey in 2022, n = 150)

**Materials and Methods**

***Data Collection and Processing Method at the Subordinate Level***

Method of collecting data: The project selects a convenience sampling method, meaning that the interviewer will randomly approach tourists at Ba Chua Xu temple, Thoai Ngoc Hau tomb and other locations in the Sam Mountain NTA. These locations were selected for surveying because they have favourable conditions, such as a concentrated space and are the busiest places for visitors at Sam Mountain NTA. Content of the survey: information on the factors affecting tourists’ satisfaction with the quality of tourist services at Sam Mountain NTA.

Sample size: This study uses Exploratory Factor Analysis (EFA). The process of factor analysis is shown in Figure 1. Typically, to use the exploratory factor analysis method, the sample size is good when the ratio of observed variables to measured variables is 5:1, meaning that at least five observed variables are needed for one measured variable (Hair *et al.*, 2009). The factor scale influencing the quality of service of the Sam Mountain NTA is set up with 18 observed variables included in the factor analysis, so the minimum sample size required is 90. Therefore, the survey sample is based on interviewing 150 tourists of the Sam Mountain NTA, which is sufficient for the analysis methods in this study. The proposed research includes four variable

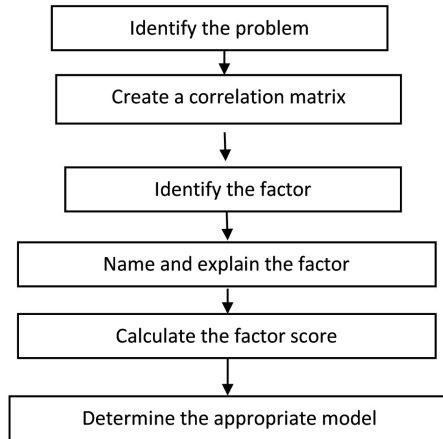


Figure 1: Factor analysis process

groups (factors) consisting of 18 observed variables as follows:

- (1) Infrastructure includes six variables: HT1 (transportation); HT2 (parking lot); HT3 (restroom); HT4 (accommodation); HT5 (communication); HT6 (electricity, water).
- (2) Labour includes three variables: LD1 (staff); LD2 (local people); LD3 (professional staff).
- (3) Type includes three variables: LH1 (souvenir); LH2 (food service); LH3 (tourist type).
- (4) Environment includes six variables: MT1 (price); MT2 (soliciting tourists); MT3 (food hygiene); MT4 (tourist environment); MT5 (scenery); MT6 (tourist connection).

The research model is built explicitly based on four factors, as shown in Figure 2.

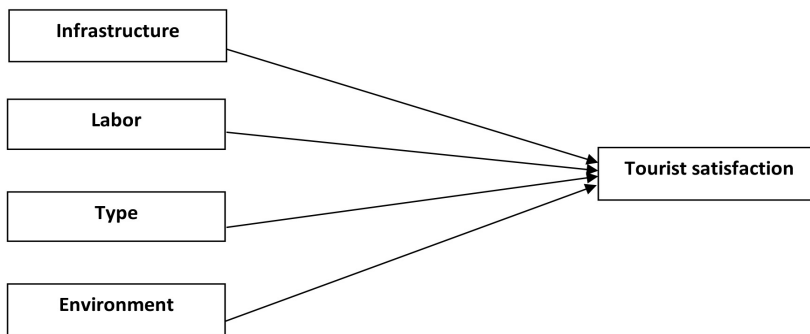


Figure 2: The research model

**Data Analysis Methods**

The steps of data analysis are shown in Figure 3. The data analysis methods used in the study include descriptive statistics (gender, occupation, time, purpose, information source, and tourist destination) to analyse the current situation of tourist activities at the Sam Mountain NTA site and describe tourists’ perceptions of the quality of services provided by the site. In addition, Cronbach’s Alpha analysis, EFA factor analysis, and multiple regression analysis were used to identify the key factors affecting tourists’ satisfaction with service quality at the Sam Mountain NTA site. To analyse quantitative data, the study used SPSS 20.0 software. Responses were coded, and SPSS calculations were used to ensure the accuracy and reliability of the data obtained and to determine the benefits of the data.

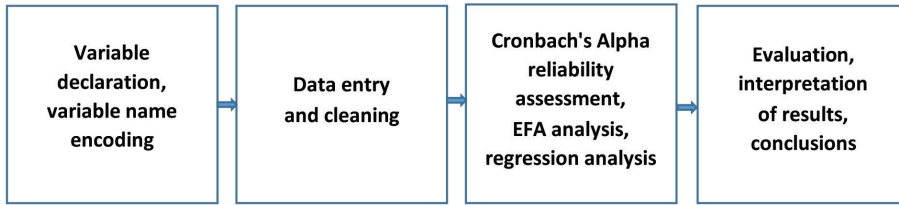


Figure 3: Data analysis steps

**Results and Discussion**

The Cronbach’s Alpha method measures unsuitable variables and reduces noise variables in the research process by evaluating the scale using Cronbach’s Alpha reliability coefficient. Variables with an item-total correlation coefficient of less than 0.3 will be removed. The scale with a Cronbach’s Alpha coefficient of 0.6 or higher can be used in cases where the concept being studied is new. To evaluate the factors affecting tourists’ satisfaction with the quality of services at the Sam Mountain NTA, the study used four criteria (18 measurement variables), including infrastructure (six variables), labour (three variables), type (three variables), and environment (six variables). The four criteria (18 variables) were evaluated to ensure the reliability of the measurement scale and variables. Regarding the reliability of the measurement scale, Cronbach’s Alpha of 0.7 to nearly 0.8 indicates an acceptable measurement scale, while a Cronbach’s Alpha of 0.8 to almost 1 indicates a good measurement scale (Hoang & Chu, 2008). Regarding the reliability of the measurement variables, they were considered reliable when the corrected item-total correlation coefficient was  $\geq 0.3$  (Nguyen, 2011). After conducting Cronbach’s Alpha, the results were as follows, Table 2.

Table 2: Cronbach’s Alpha coefficients for all components

Cronbach’s Alpha	N of Items
0.838	18

(Source: Data analysis results from direct tourist survey in 2022, n = 150)

Cronbach’s Alpha components are  $0.838 > 0.6$  satisfying the above conditions (Table 2), and we continue to analyze the scale of Cronbach’s Alpha coefficients for each component.

Cronbach’s Alpha results of each component in the service quality scale of Sam Mountain NTA are presented in the following Table 3.

The results in Table 3 show that, out of four criteria (consisting of 18 variables) included in the test, only one variable MT5 (in the Environment group), was removed from the scale due to a correlation coefficient of the total variable (0.263) being less than 0.3. The remaining 17 variables belong to four groups:

- Infrastructure group: Consisting of six variables (transportation; parking lot; restroom; communication; accommodation; electricity, water).
- Labour group: Consisting of three variables (local people, staff, professional staff).

Table 3: Cronbach’s Alpha coefficient for each component

Ordinal Number	The Scale	Cronbach’s Alpha
1	Infrastructure	0.834
2	Labour	0.810
3	Type	0.734
4	Environment	0.733

(Source: Data analysis results from direct tourist survey in 2022, n = 150)

- Type group: Consisting of three variables (food service, souvenir, tourist type).
- Environment group: Five variables (price; soliciting tourists; tourist environment; tourist connection; food hygiene).

The scale evaluation is conducted by Exploratory Factor Analysis (EFA). The Kaiser-Meyer-Olkin (KMO) coefficient is a measure used to assess the suitability of factor analysis. A high KMO value (between 0.5 and 1) indicates appropriate factor analysis. In contrast, a value less than 0.5 suggests that the factor analysis may not be suitable for the data (Hoang & Chu, 2008). Variables with factor loadings less than 0.5 will be removed. The stopping point is when the Eigenvalue (representing the variance explained by each factor) is more significant than one, and the total extracted conflict is greater than 50%. The variable selection process in this analysis is performed in two steps:

Step one: 17 observed variables are included in the analysis according to the criterion that the Eigenvalue is greater than one, and observed variables with factor loadings less than 0.5 would be removed. The results yield four factors extracted. The total extracted variance is 63.586%, indicating that these four factors explain 63.586% of the conflict in the data. The KMO coefficient is 0.872 (> 0.5), thus meeting the requirement. With the Varimax rotation, no variables are removed.

Step two: The 17 observed variables are included in the analysis again. The null hypothesis H0 set in this analysis is that there is no correlation among the observed variables in the population. The KMO and Barlett’s tests in the factor analysis (shown in Table 4) show that this hypothesis is rejected (Sig = 0.000),

indicating that this test is statistically significant and the observed variables are correlated in the population.

The KMO coefficient (= 0.872 > 0.5) indicates that factor analysis (EFA) is appropriate for this analysis. The results of the EFA factor analysis show that at the Eigenvalue = 1 level, using the factor extraction method with Varimax rotation allows for the extraction of four factors from 17 observed variables, and the extracted variance is 63.586%, indicating that these four factors explain 63.586% of the variation in the data. Therefore, the extracted conflict meets the requirement (> 50%). In the Rotated Component Matrix (shown in Table 5), all factors have loading coefficients greater than 0.5, which meets the condition, so no variables need to be removed from the scale.

***Naming and Explaining the Factors***

The explanation of the factors is based on recognizing the observed variables with high factor loadings on the same factor. Thus, this factor can be explained by variables with high coefficients. Based on the factor analysis results using SPSS above, there are four factors with explanations of the content of each factor, and from there, based on the nature of specific variables that the factor includes, a new name for the factor will be found (this property is called the exploratory property of factor analysis).

- First factor: Renamed as “Infrastructure”, this factor includes two components (1) Infrastructure with variables HT1, HT2, HT3, HT4, HT5 and HT6, and (2) Environment with variable MT4. All of these variables have factor loadings greater than 0.5.

Table 4: KMO Test table

<b>Kaiser-Meyer-Olkin Measure of Sampling Adequacy</b>		<b>0.872</b>
	Approx. Chi-Square	1159.357
Bartlett’s Test of Sphericity	df	136
	Sig.	0.000

(Source: Data analysis results from direct tourist survey in 2022, n = 150)

Table 5: Rotated Component Matrix

Observed Variables	Factors			
	1	2	3	4
HT2	0.721			
HT6	0.687			
HT4	0.676			
HT5	0.673			
HT3	0.671			
HT1	0.620			
MT4	0.541			
LD2		0.772		
LD3		0.710		
LD1		0.706		
MT6		0.688		
LH1			0.784	
LH2			0.742	
LH3			0.669	
MT2				0.880
MT1				0.632
MT3				0.627

(Source: Data analysis results from direct tourist survey in 2022, n = 150)

- Second factor: Renamed as “Labour” this factor includes the component (1) Labour with variables LD1, LD2, LD3, and (2) Environment with variable MT6. All of these variables have factor loadings greater than 0.5.
- Third factor: Renamed as “Type” in this factor, which includes the Type component with variables LH1, LH2, LH3. All of these variables have factor loadings greater than 0.5.
- Fourth factor: Renamed as “Environment” this factor includes the Environment component with variables MT1, MT2, and MT3. All of these variables have factor loadings greater than 0.5.

**Interpretation of the Results**

The factor analysis results have produced a model that measures tourists’ satisfaction with the service quality of tourist areas, which is a combination of measurement scales: Infrastructure; Labour; Type; and Environment.

- Infrastructure group: Consisting of seven variables (transportation; parking lot; restroom; accommodation; communication;

electricity & water, and tourist environment).

- Labour group: Consisting of four variables (staff, local people, professional staff and tourist connection).
- Type group: Consisting of three variables (souvenir; food service and tourist type).
- Environment group: Three variables (price, soliciting tourists and food hygiene).

**Adjusting the Research Model**

Based on the factor analysis results above, the research model is modified to include four components: (1) Infrastructure, (2) Labour, (3) Type of service and (4) Environment. The adjusted model is shown in the diagram below. Tourists’ satisfaction is still the dependent variable, but the independent variables are the newly identified components through factor analysis. Some hypotheses are adjusted as follows:

- F1: Infrastructure positively correlates with satisfaction.
- F2: Labour has a positive relationship with satisfaction.



Table 6: Factor analysis results

Observed Variables	Factor	Weight
F1	Infrastructure	
HT1	Transportation	0.620
HT2	Parking lot	0.721
HT3	Restroom	0.671
HT4	Accommodation	0.676
HT5	Communication	0.673
HT6	Electricity & water	0.687
MT4	Tourist environment	0.541
F2	Labour	
LĐ1	Staff	0.706
LĐ2	Local people	0.772
LĐ3	Professional staff	0.710
MT6	Tourist connection	0.688
F3	Type	
LH1	Souvenir	0.784
LH2	Food service	0.742
LH3	Tourist type	0.669
F4	Environment	
MT1	Price	0.632
MT2	Soliciting tourists	0.880
MT3	Food hygiene	0.627

(Source: Data analysis results from direct tourist survey in 2022, n = 150)

F3: Type of service has a positive relationship with satisfaction.

F4: Environment has a positive relationship with satisfaction.

### ***Building a Regression Model***

After extracting the factors from the exploratory factor analysis, necessary assumptions in the multivariate regression model are tested for violations, such as constant error variance assumption, normality assumption of the residuals, independence assumption of the errors, and no correlation assumption between independent variables. If the premises are not violated, a multivariate regression model is built.

### ***Regression Analysis***

To determine, measure, and evaluate the influence of the factors on the satisfaction of domestic tourists, a multivariate regression method is used among the four factors obtained from the exploratory factor analysis, including Infrastructure, Labour, Type of service and Environment that affect the satisfaction of tourists with the quality of service at Sam Mountain NTA in An Giang province. Multiple regression model equation (Equation 1):

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + i \quad (1)$$

where:

Y: Dependent variable (customer satisfaction with the quality of services at the Sam Mountain tourist site in An Giang province).

X1, X2, X3, X4: Independent variables, factors influencing customer satisfaction (X1: Infrastructure, X2: Labour, X3: Type, X4: Environment).

$\beta_0$ : Regression constant.

$\beta_i$  (with  $i = 1,2,3,4,5,6$ ): Regression coefficients.

$i$ : Error term.

After inputting the four independent variables into the regression analysis using SPSS software, the following results were obtained. The results in Table 7 show that the adjusted R<sup>2</sup> value is 0.612, indicating that the independent variables in the model can explain 61.2% of the variation in the dependent variable. The remaining 38.8% is attributed to other factors not included in the model and affect tourists' satisfaction with the quality of services at the Sam Mountain NTA in An Giang province.

To assess the overall fit of the regression model, we examine the F value from the ANOVA

variance analysis table (Table 8). The F value is 59.695, and the Sig value is 0.000, indicating that the multiple regression model is suitable for the dataset and can be used.

The Variance Inflation Factor (VIF) for each factor is less than ten (Table 9), indicating that the regression model does not violate the multicollinearity phenomenon (independent variables are highly correlated). Overall, all four variables in the model positively correlate with tourist satisfaction.

Thus, with the significant regression coefficients found, the equation can be written as follows (Equation 2):

$$\text{Satisfaction} = 0.138 + 0.332*LD + 0.318*LH + 0.207*HT + 0.135*MT \quad (2)$$

(LD: Labour, LH: Type, HT: Infrastructure, MT: Environment)

The coefficients of the equation show that Labour and Type are the two most essential

Table 7: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
52.869	4	13.215	59.695	0.000 <sup>a</sup>
32.100	145	0.221		
84.960	149			

(Source: Data analysis results from direct tourist survey in 2022, n = 150)

Table 8: Analysis of variance table of regression model (ANOVA)

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	52.869	4	13.215	59.695	0.000 <sup>a</sup>
Residual	32.100	145	0.221		
Total	84.960	149			

(Source: Data analysis results from direct tourist survey in 2022, n = 150)

Table 9: The coefficients of regression analysis

Model	B	Std. Error	Sig.	VIF
Constant	0.138	0.227	0.544	
HT (Infrastructure)	0.207	0.076	0.008	1.985
LH (Type)	0.318	0.065	0.000	1.540
MT (Environment)	0.135	0.054	0.013	1.354
LD (Labour)	0.332	0.069	0.000	1.858

(Source: Data analysis results from direct tourist survey in 2022, n = 150)

components that significantly impact tourist satisfaction at the Sam Mountain NTA. Infrastructure and the Environment also have a significant impact. This result shows that tourist sites need to improve the quality of services for tourists. However, it does not mean that low-impact factors in the model should be ignored.

### Conclusion

The results of Cronbach's Alpha analysis and EFA analysis revealed four factors that affect tourists' satisfaction, including labour, infrastructure, type, and environment. After conducting a multiple regression analysis, it was found that there is a linear relationship between the four factors and tourists' satisfaction with a significance level of  $\text{sig} = 0.000 (< 0.05)$ . The regression analysis showed that tourists' happiness depends on the four factors in the following order of increasing influence: environment, infrastructure, type, and labour. Based on these results, the theoretical hypotheses F1, F2, F3, and F4 were tested and accepted. Therefore, the multiple regression equation that represents the degree of influence of the factors on tourists' satisfaction is established as follows (Equation 3):

$$\text{Tourists' satisfaction} = 0.138 + 0.332 * \text{Labour} + 0.318 * \text{Type} + 0.207 * \text{Infrastructure} + 0.135 * \text{Environment} \quad (3)$$

Specifically, the influence of each factor on tourists' satisfaction is as follows:

#### *Variable X1 (Labour)*

The above equation indicates that tourists' perception of labour at the Sam Mountain NTA is the best among the variables. If the other variables in the model remain unchanged, tourists' satisfaction will increase by 0.312 points. Therefore, tourists are delighted with the labour factor, meaning the staff are attentive, enthusiastic and highly professional. At the same time, the locals in the Sam Mountain NTA are also amiable and hospitable. Therefore, tourists will usually rely on the staff's attitude to evaluate the quality of the tourist services

provided to them because the staff are the ones who interact with and directly provide services to tourists. If tourists rate the staff's service attitude higher, they will be more satisfied with the tourist site.

#### *Variable X2 (Type)*

The above equation indicates that when tourists' perception of the type of tourism is excellent if the other variables in the model remain unchanged, their satisfaction will increase by 0.318 points. Tourism is a period of enjoying comfortable and relaxing moments after long, tiring working days. Therefore, the diversity and differentiation of tourism types at the tourist site play a crucial role. The variety and differentiation of tourism types at the Sam Mountain NTA will determine its competitiveness with other tourist sites. Therefore, researching and developing various tourist services at tourist sites will enhance tourists' satisfaction. More amusement parks and new games should be developed, and more attention should be paid to promoting tourism types unique to the area.

#### *Variable X3 (Infrastructure)*

The equation above shows that when tourists' perception of infrastructure is perfect, with other variables in the model unchanged, tourists' satisfaction will increase by 0.207 points. Infrastructure plays a vital role in the quality of tourist services. Good infrastructure can improve tourists' travel experience, making it more convenient and comfortable. This includes transportation, accommodation, and other facilities. Therefore, investing in infrastructure is an essential task for developing tourism.

#### *Variable X4 (Environment)*

The equation above shows that when tourists' perception of the environment is excellent, with other variables in the model unchanged, the tourists' satisfaction will increase by 0.135 points. The setting is an essential factor that affects the tourist experience of tourism. A clean and beautiful environment can create a pleasant

atmosphere, making tourists feel relaxed and comfortable. In contrast, a polluted environment can negatively affect the tourist experience, leading to dissatisfaction. Therefore, paying attention to environmental protection and management in tourist destinations is necessary.

In conclusion, the study found four factors influencing tourists’ satisfaction in the Sam Mountain NTA: Labour, Infrastructure, Type, and Environment (Figure 4). The results of the multiple regression analysis showed that these factors have a linear relationship with tourist satisfaction. Tourists’ happiness depends on these factors in the order of increasing influence: Environment, Infrastructure, Type, and Labour. The study also established a multiple regression equation to quantify the impact of these factors on tourist satisfaction. The equation can be used as a basis for tourist managers to develop strategies to improve the quality of tourist services and increase tourist satisfaction in the Sam Mountain NTA.

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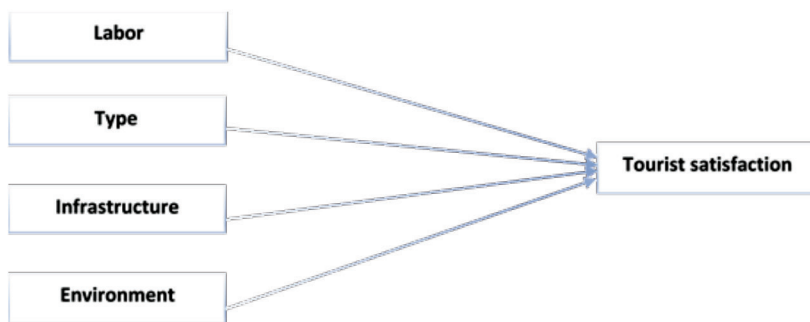


Figure 4: The complete research model

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