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Table of Contents:

1	<b>How Moroccan Film Destination Attracts More Tourists</b> M'barek ALHADDAR, Harshavardhan Reddy KUMMITHA	2981
2	<b>Impacts of Tourism on Development of Urban Areas in Indian Cities: A Systematic Literature Review</b> Vivek AHIRWAR, Rhitwik GUPTA, Ashwani KUMAR	2993
3	<b>Awareness and Perception Toward Heritage, Life, and Tourism in Converting Tourism Area</b> Ali S. HYASAT	3006
4	<b>Development of Urban Tourism along the Seaside Resort Town of Limbe in Cameroon</b> Amélie-Emmanuelle MAYI, Gilbert FONDZE BAMBOYE, Terence NCHA NDOUMBE	3019
5	<b>Creating Service with Thai Hospitality: What Does Service Providers Highlight for Hotel Service in Thailand?</b> Manisa PIUCHAN	3034
6	<b>Perceived Benefits of Micro and Small Enterprises in Developing Pro-poor Tourism</b> Rudrendu RAY, Sazu SARDAR, Fidella Nga Huong TIEW, Samuel Folorunso ADEYINKA-OJO, Shital Sohani CHITRA, Md. Abdul ALIM, Sanjana SOBHAN	3049
7	<b>The Portrait of Wellness Tourism during the COVID-19 Pandemic in Indonesia. A Case Study of Health Protocol Implementation at Green Kubu Café Bali</b> Putu Eka WIRAWAN, Ni Made Ayu Natih WIDHIARINI, I Nyoman SUDIARTA, Ni Wayan Mega Sari Apri YANI, NURUDDIN	3062
8	<b>Potential of Historic Sites for Independence Struggle as Indonesia's Main Tourism Assets in Padang City</b> Ridho Bayu YEFTERSON, Syafri ANWAR, Siti FATIMAH, Yelda SYAFRINA, Hendra NALDI, Uun LIONAR, Aprizon PUTRA	3069
9	<b>Tourism Development in National Tourism Strategic Areas: Prospects and Local Community Participation</b> Sigit WAHYUDI, Mardiyono MARDIYONO, Ivan SUAIDI, Fiza Hari APRIDANA	3078
10	<b>Factors Influencing Decision Making to Revisit Japan of the Thai Bangkokian Millennial Tourists during Public Holidays</b> Nattada SRIMUK, Therdchai CHOIBAMROONG, Chayapoj LEE-ANANT, Vorada PANPENG, Wallop THONGON	3092
11	<b>Community Empowerment in Tourism Village Areas: Efforts to Maintain the Sustainability of Tourism Activities</b> Eilyn NORMELANI, Deasy ARISANTY, Karunia Puji HASTUTI, Rusma NORTYANI, RUSDIANSYAH	3101
12	<b>Factors Affecting the Development of Community-Based Night Tourism in Vietnam: A Case Study in Sapa-Lao Cai</b> Phan TRINH THI, Nga NGUYEN THI PHUONG, Hao HOANG VAN	3112
13	<b>Integration of Environmental Procedures and Team Cohesion: Survey of Tourism Industries in the Fez Meknes Region</b> Sofya SEFFAR ANDALOUSSI, Mohamed HEMMI	3125

# Call for Papers

## Volume XV, Issue 1(73)

### Journal of Environmental Management and Tourism

**Journal of Environmental Management and Tourism** is an open access, peer-reviewed interdisciplinary research journal, aimed to publish articles and original research papers that contribute to the development of both experimental and theoretical nature in the field of Environmental Management and Tourism Sciences. The Journal publishes original research and seeks to cover a wide range of topics regarding environmental management and engineering, environmental management and health, environmental chemistry, environmental protection technologies (water, air, soil), pollution reduction at source and waste minimization, energy and environment, modelling, simulation and optimization for environmental protection; environmental biotechnology, environmental education and sustainable development, environmental strategies and policies.

Authors are encouraged to submit high quality, original works that discuss the latest developments in environmental management research and application with the certain scope to share experiences and research findings and to stimulate more ideas and useful insights regarding current best-practices and future directions in Environmental Management.

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## Factors Affecting the Development of Community-Based Night Tourism in Vietnam: A Case Study in Sapa-Lao Cai

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**Abstract:** This study identifies the factors affecting the development of community-based night tourism, thereby making recommendations to develop community-based night tourism in a sustainable way. Exploratory factor analysis (EFA) combined with linear regression was performed on a survey of 391 tourists who had been to Sapa. Research results show that there are 5 influencing factors: (i) environment, (ii) culture and services, (iii) infrastructure, (iv) security and safety, (v) main tourism development policy. In particular, the factors "security, safety" and "infrastructure" have the strongest influence on the development of community-based night tourism in Sapa. On that basis, the study proposes some recommendations to develop community-based night tourism in a sustainable way.

**Keywords:** night tourism development; influencing factors; community; Sapa.

**JEL Classification:** Z32; Z30; L83; P25; R11.

### Introduction

Night - time economy is a field that has been interested in many countries, in modern and bustling cities around the world (London 2018), (Houghton and Rowell 2017). Activities that take place after 5 pm and last until 6 am have contributed significantly to promoting economic development, creating jobs, surplus value and attracting foreign currency. Tourism plays a significant role in the development of the night economy through tourist walks, light festivals, tourist attractions open to late visitors, bars, restaurants...

In the world, night tourism is popularly developed in countries with developed economies: the US, Europe, Australia and many cities in Asia. Nowadays, nightlife has also appeared in many places in developing countries, small cities or tourist destinations. Stemming from the needs of tourists, the nightlife in these destinations is interested in promoting; The relationship of the night economy and tourism becomes close thanks to the increasing appearance of tourists.

In Vietnam, night tourism has not had any official studies to determine its scale as well as its impact on the socio-economic life of the country. In some big cities: Hanoi, Ho Chi Minh City, Da Nang, night tourism is more attractive and diverse because many services, events, food streets, walking streets... are organized at night (Quynh and Thuy 2019). In addition, in many tourist cities such as Da Lat, Nha Trang, Hue, Sa Pa ... night

entertainment services are also interested in order to prolong the activities of tourists, although it is still quite monotonous, duplication between destinations.

Sa Pa is a tourist town in the northern mountainous region of Vietnam. Thanks to the advantages of cool and temperate climate on high mountainous terrain, this place was soon exploited for resort purposes. Sa Pa is also home to many ethnic minorities with many unique and diverse indigenous cultures that have been preserved up to now. The culinary values of the local people, the love market for relationships, meeting and falling in love, performing folk music every weekend night in the city center... are special features of community culture that visitors to Sapa want to experience (Tinh 2020). Therefore, in addition to some services of an urban area (karaoke, restaurants, squares ...), Sapa also has many unique indigenous values of ethnic minorities to create the attractive, unique night tourism products.

Therefore, our research proposes 2 questions about the development of community-based night tourism in Sa Pa as follows: (1) What are the values of night tourism resources in Sapa?; (2) By which factors and their extent is night tourism in Sapa affected? What needs to be done to develop night tourism associated with preserving indigenous community values in Sa Pa?. Therefore, the purpose of the study is set out as follows: Firstly, the theory of night tourism and factors affecting the development of night tourism. Secondly, analyze the characteristics of the value of night tourism resources in Sa Pa and evaluate the factors affecting night tourism activities in Sa Pa. Thirdly, we propose some orientations for developing night tourism on the basis of preserving and promoting community values in this locality.

## 1. Literature Review

### 1.1. Night Tourism

Night tourism or tourism activities that take place during the night has become an important area for the enrichment and prosperity of the night economy (Chen *et al.* 2020). The development of the night economy along with efforts to perfect policies that allow many services, public entertainment spots, and attractions to open late at night have increased the attraction for tourists.

*"Night Tourism is the extension and expansion of regular tourism activities in the daytime"* (Chen *et al.* 2020). In many studies related to night tourism, we find a focus on the relationship between "night" and "travel"; boundaries of "night" and "day" in 24-hour cities, and in particular the way that night creates attraction for tourists (Eldridge and Smith 2019a). Accordingly, the night plays an increasingly important role in creating space and time not only for tourists but also for residents of cities; the boundary between day and night is blurring and tourism is the driving factor (Kreitzman and Foster 2011).

Hwasung Song (Song, Kim, and Park 2020) argues that night tourism can be classified as typical tourist activities; it may include sightseeing, seeing performances and participating in tour programs like daytime tourism activities. Tourism activities at night are therefore considered in three aspects: (1) expansion of traditional daytime tourism activities at night (museums, galleries and other attractions...); (2) using the night as a tourism resource to develop some products of special experiences thanks to darkness (stargazing, astrology, wildlife observation...); (3) create the attractiveness of the city at night from works and events using lighting effects (Eldridge and Smith 2019a). Therefore, the attraction from adventure, experiencing new atmosphere is the target of night tourism in particular and more inclusive than night economy. Moreover, the subjects participating in night tourism are not only distant tourists but also city residents who also become significant consumers of these night tourism products.

Today, night tourism is very developed in urban destinations, major cities in the world - where the night economy was formed early. Besides the "big guys" who are European, North American, and Japanese cities, Asian destinations are no less crowded because of the attraction from unique tourism products and cultural experiences at night (Chen *et al.* 2020, Qi 2021, G. Chen and Tong 2021; Tian, Zheng, and Wang 2021)... In China, night tourism has formed four development models : performance (modern and folk performing arts activities), landscape (tour, night view), participation (snacks, shopping, entertainment) and holistic (direction) to the design of overall night sightseeing tourist routes) (Qi 2021). Evans (Evans 2012) analyzed late night events/festivals and confirmed that perceived benefits from night economic growth such as improved vitality of areas, expansion of entertainment venues , increase the number of citizens, increase the number of jobs, increase the number of tourists and activate investment of businesses in other economic areas. In addition, night tourism can enrich the local culture as it not only attracts tourists from the outside but also creates consumption opportunities in the city for locals (Eldridge and Smith 2019; Evans 2012)

The study of N.Chen *et al.* (2020) (Chen *et al.* 2020) summarized three sustainable functions of night tourism: increasing economic benefits (stimulating consumption and night trade, attracting large numbers of



tourists and enhancing potential business opportunities); contribute to social and cultural sustainability while promoting environmental protection behaviours. Moreover, the development of night tourism contributes to significantly improving the traditional mode of tourism, promoting tourism industry linkages. Although there are many studies on night tourism that emphasize the negative effects (alcohol abuse, violence, crime (Amador *et al.* 2011,52, Eldridge 2019)... but night tourism still proves to be a special attraction in urban areas, showing the cultural characteristics and styles of local people.

## 1.2. Factors Affecting the Development of Night Tourism

Night tourism, like many other tourism activities, is always influenced by many different groups of factors. Many early studies identified night lights in destinations as creating attraction for the activities of night tourists (Baker 2015, Qin *et al.* 2011) because of the expansion of buildings and activities. Lighting intensity, night activities become "more and more colorful" (Qin *et al.* 2011) Besides, many factors such as climate at night, abundance of attractions, night culture environment as well as market demand for local people's activities...also influence the development of night tourism in a destination.

First of all, the nighttime climate with a suitable temperature for visitors to participate in activities requires not too hot during the day in tropical regions and not too cold at night in temperate regions (Qin *et al.* 2011); or have four-season weather with its own beauty that attracts tourists to explore at night (Quynh and Thuy 2019). In some studies, the factor of more pleasant weather at night was mentioned as an advantage to expand sightseeing (Zmyslony and Pawlusiński 2020); or the main motivation for choosing a 'nightlife' destination (Amador *et al.* 2011).

The environment and atmosphere at night is created not only in the natural aspect but also in the cultural value (the author calls it local wisdom) that makes the attraction and brand of the night tourism destination (Selly *et al.* 2020). In terms of culture, habits and nightlife habits (influenced from hot weather conditions in the day) such as drinking tea, entertaining friends, walking in the evenings have created wealth of nightlife cultural heritages, which tourists participate easily (Qin *et al.* 2011) Chinese, Korean, and Taiwanese scholars show that night tourism in many Asian countries is interested in exploiting traditional cultural products: night markets, folk art performances, night cuisine, boating night, heritage tours (Lee *et al.* 2008, Guo *et al.* 2011)... Studies the case of the Dong village (residence of the Dong ethnic group in Hunan, China) by the authors Tian, Z and Wang has revealed an analytical framework on the relationship between traditional culture at night in the development of night tourism, associated with cultural heritage protection (Tian,Z and Wang 2021). Among the services that attract visitors at night, the night market is considered as the factor "lets the tourists understand the local culture and the custom first", especially the cuisine and goods with local characteristics are considered as the factor attracting international tourists to the night market (London 2018, Houghton and Rowell 2017).

From the perspective of visitors' perception, the factors "Affordable perception of price", "Current value", "Emotional value", "Cultural intellectual value" and "Social value" affects product and nighttime visitor engagement (Zhao *et al.* 2016). Night tourism services, infrastructure and people's awareness of night tourism are also factors that will contribute to promoting night tourism in the destination (Song and Zhou 2020), (Nghia *et al.* 2017) or demand for health care, accommodation services (Nghia *et al.* 2017, Quyen *et al.* 2019). Furthermore, night tourscape comprises space presentation, night atmosphere, merchandise, night activities, crowds, and culture display directly stimulates tourists' sensory experience (Ruan, W.R *et al.* 2023).

Safety issues of tourists participating in night tourism (Hsieh and Chang 2006) (Thin and Huynh 2014) policies for destination night services (Song and Zhou 2020, Tran 2022) all affect the development of night tourism in destinations.

Thus, the research overview shows that the groups of factors affecting night tourism activities in the destination include: climate of the destination, culture and nightlife activities of local people, infrastructure and technical facilities, security and safety of visitors, policy of developing night tourism services. All factors are inherited to build an analytical framework for the case study of the article.

## 2. Research Methodology

### 2.1. Methods of Data Collection and Processing

To carry out this study, the authors used the main methods: synthesis method, secondary data analysis and survey by questionnaire to get information about the factors affecting the development. Community-based night tourism in Sapa - Lao Cai - Vietnam. For secondary data, the research is collected from various sources: internet, scientific journals, documents of local tourism management agencies (Department of Culture, Sports and

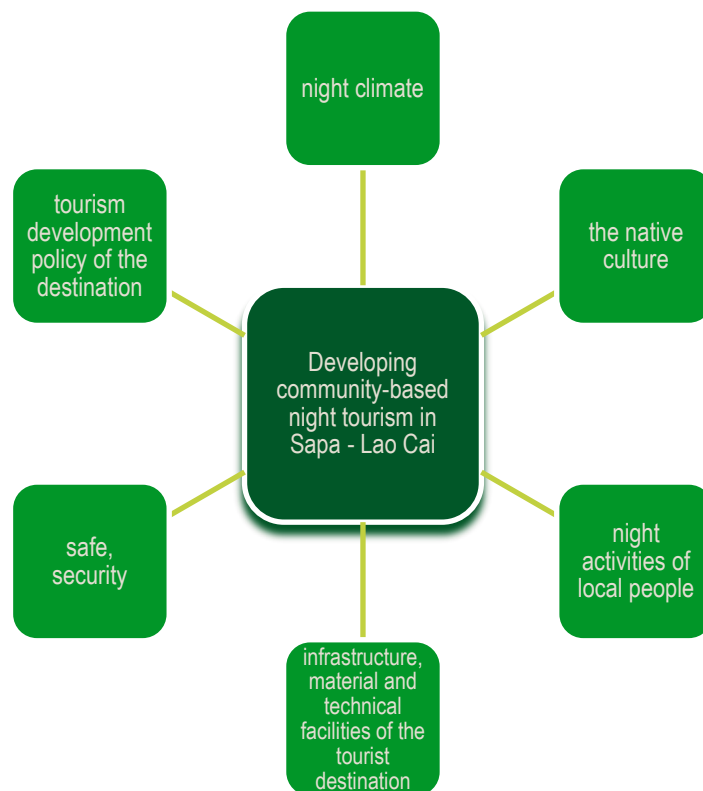
Tourism, the tourist information center of Sapa district), then conduct an analysis, assessment and synthesis of the number of tourists, tourism revenue and the existing tourism potential of Sapa - Lao Cai.

Primary data was collected using a questionnaire. The questionnaire structure consists of 2 parts. Part 1 is questions about the respondents' general information. Part 2 includes questions about factors affecting the development of community-based night tourism in Sapa. The research team used the nominal scale for part 1, the nominal scale and the interval scale for the closed question of part 2. For the interval scale, the research team used a 5-point Likert scale. According to Saunders, the Likert scale of 4, 5, 6 or 7 points is commonly used for degree questions to capture more opinion (Saunders *et al.* 2009, 768). Some other researchers also pointed out that questions with 5 or 6 rating points are more appropriate. According to Dunn & Roberts, theoretically, Likert scale is ordinal scale; However, if the measurement is from 5 points or more, the actual test results show that the Likert scale has the same features as the interval scale (Dunn and Roberts 1999). Since it is not possible to establish a list of all tourists who will visit Sapa during the sampling period, the interview subjects of the study are all tourists traveling in groups (except for the elderly and children, tourists not staying overnight). After collecting the data, it was reviewed and entered on the software SPSS (Statistical Package for the Social Sciences) for windows version 20.0. The data were analyzed using the following methods: descriptive statistics, scale reliability and exploratory factors analysis. Exploratory Factors Analysis (EFA) aims to find out the independent variables in the research on community-based night tourism development and identify the important criteria in each factor. Besides, the linear regression analysis will show the influential factors and the degree of influence of the independent variables on the development of community-based night tourism in Sapa. That is the basis to give solutions and proposals for the development of community-based night tourism in Sapa - Lao Cai.

## 2.2. Research Models

There have been many studies evaluating the factors affecting night tourism. Factors affecting night tourism include: night climate; the native culture; night activities of local people; infrastructure, material and technical facilities of the tourist destination; safe security; tourism development policy of the destination (Figure 1)

Figure 1. Proposed research model



Source: Authors' proposal, 2022

From the above research model, the Likert 5 scale is used for the observed variables. Six criteria and 21 measurement variables were used to evaluate the factors affecting the development of community-based night tourism in Sapa - Lao Cai as follows Table1.

Table 1. Proposed measurement variables in the study

Factors	Sign	Variables	Source
Night climate	X1	Suitable night temperature	(G Qin, Meizhen, and Jin-hua 2011)
	X2	Clean air	(Zmyslony and Pawlusiński 2020)
The native culture	X3	Diverse and attractive local foods	(Evans 2012; Qin et al.2011)
	X4	Unique Indigenous People's Festival	(Qin <i>et al.</i> 2011)
	X5	Customs and habits of indigenous people	(Hsieh and Chang 2006; Qin <i>et al.</i> 2011)
Night activities of local people	X6	Exciting love market activities	(Selly <i>et al.</i> 2020) and the author's recommendation
	X7	The night market has many local specialties	(Thin and Huynh 2014; Hsieh and Chang 2006)
	X8	Many entertainment activities at night	(Nghia <i>et al.</i> 2017)
	X9	Health care services to meet the needs of visitors	(Nghia <i>et al.</i> 2017)
Infrastructure, material and technical facilities of the tourist destination	X10	Convenient transportation system for moving	(Nghia <i>et al.</i> 2017)
	X11	Stable free internet	(Nghia <i>et al.</i> 2017)
	X12	Various means of transport	(Nghia <i>et al.</i> 2017)
	X13	Fully responsive public service	(Nghia <i>et al.</i> 2017, Thin and Huynh 2014)
	X14	Hotels, restaurants to meet the needs of visitors	(Quyên <i>et al.</i> 2019)
Safe, security	X15	There is a hawker situation at the destination	(Quyên <i>et al.</i> 2019; Hsieh and Chang 2006)
	X16	No robbery, begging	(Thin and Huynh 2014; Hsieh and Chang 2006)
	X17	Friendly locals	(Quyên <i>et al.</i> 2019)
	X18	Maintain a clean and healthy environment	(Tran 2022)
Tourism development policy of the destination	X19	Regulations on long night hours	(Song <i>et al.</i> 2020)
	X20	There is a policy to support people doing business in night tourism	(Tran 2022)
	X21	Policy to control unhealthy entertainment activities at night	Suggested by the authors
Developing community-based night tourism in Sapa - Lao Cai	Y1	I see the development of community-based night tourism products in Sapa	Suggested by the authors
	Y2	I see an increase in the number of tourists participating in night tourism in Sapa	
	Y3	I see local people actively in developing night tourism	
	Y4	Overall, I see community-based night tourism in Sapa growing	

Source: Authors' proposal, 2022

The content of the survey question consists of three main parts:

Part 1: Exploiting key information of tourists: age, gender, education level, income

Part 2: Exploiting information about community-based night tourism activities in general such as: trip purpose, form of travel, popularity of this type of tourism with tourists through the source

Part 3: The questions focus on exploiting the factors affecting the development of community-based night tourism with 6 groups of factors and 21 evaluation criteria. In addition, this section also presents 4 questions for



the scale of community-based night tourism development. Respondents give their opinions on a 5-point Likert scale: (1) Totally disagree, (2) Disagree, (3) No opinion, (4) Agree, (5) Strongly agree. Agree

### 3. Research Results and Discussion

#### 3.1. Research Sample Overview

Table 2 presents descriptive information about the survey sample obtained. Out of 391 respondents, 202 are female, accounting for 51.7%, the rest are male. In terms of age, tourists under 30 have 137 people (accounting for 35.0%), from 30 to 45 years old, there are 156 people (accounting for 39.9%). The number of tourists over 45 years old is only 98 people, equivalent to 25.1%. In terms of income, tourists with a monthly income of 10 - 20 million VND account for the majority with 195 people, equivalent to 49.9%. Of the 391 respondents, 28.6% of the respondents have an income of less than 10 million VND a month and 25.1% of the respondents have a monthly income of more than 20 million VND. Regarding the number of travel experiences in Sapa, the number of tourists who only went once was 276 people (accounting for 70.6%). 115 tourists (accounting for 29.4) traveled to Sapa - Lao Cai more than once.

Table 2. Profile of respondents (N = 391)

Indicators	Number	%
<b>Gender</b>		
Male	189	48.3
Female	202	51.7
<b>Age (Years)</b>		
Under 30	137	35.0
30 - 45	156	39.9
Over 45	98	25.1
<b>Monthly income (million VND)</b>		
Under 10 millions VND	112	28.6
10 – 20 millions VND	195	49.9
Over 20 millions VND	84	21.5
<b>Sapa travel experience (time)</b>		
One	276	70.6
More than once	115	29.4
<b>Total</b>	<b>391</b>	<b>100</b>

Source: Calculated from the author's survey data, 2022

#### 3.2. Tourism Resources and Development Status of Community-Based Night Tourism in Sapa - Lao Cai

Sapa is a highland district of Lao Cai province located in the northwest of Vietnam. Sapa town, the main living area of the Mong, Dao, Tay, Giay, Xa Pho, Kinh, and Hoa ethnic groups, is located at an altitude of 1600m above sea level. It is 38km from Lao Cai city. The natural landscape of Sa Pa is combined with the creativity of people and the topography of the mountains and the forest green, making the place as beautiful as a picture. The diversity of ethnic culture in the majestic and colorful natural scenery has helped Sapa become one of the most attractive tourist destinations for domestic and foreign tourists. Sapa's tourism products currently mainly focus on ecotourism, resort tourism, and community tourism exploiting the strengths of nature and the people of this land. Sapa has become a busy tourist town in the northwest of Vietnam. In order to diversify tourism products, create attractiveness for tourists and prolong the stay of tourists at the destination, Sapa has issued some policies to develop services in the town – the central area of Sapa in which night tourism services are the main product to be exploited and developed.

Sapa has a lot of potential for tourism development, in which community tourism activities are strongly developed. Formed in the ancient land, Sa Pa has 6 main ethnic groups, including: Mong (54.9%), Dao (25.6%), Kinh (13.6%); Tay (3%), Day (1.6%) and other ethnic groups (Tinh 2020). In the high mountainous areas, the Mong and Dao have a tradition of cultivating upland rice on terraced fields along the mountain slopes forming a unique landscape that attracts tourists. In particular, Muong Hoa valley is an area with a unique landscape with terraced fields between rolling hills and mountains creating a space that is both majestic and poetic. With that natural landscape, prominent are the traditional cultural values of the ethnic minorities living in this area, forming villages with typical cultural values of each ethnic group such as: Ta Van village of the Giay people, Ta Phin village of the Red Dao people, Ban Ho village of the Mong and Dao people. Those cultural values include: architecture, houses, customs, festivals, traditional crafts, folk performing arts, indigenous cultural knowledge, folk

music and dance art. ... creates its own attraction for tourists (Tinh 2020) . The architecture of houses of ethnic groups in ethnic minority and villages also creates a unique attraction for tourists. The earthen walled house of the Mong people was built with the raw materials of soil, the stilt house of the Tay and Dao people.

The traditional handicrafts of the ethnic groups in the area are quite rich and diverse such as: brocade of the Dao, Tay, Mong,..., forging and casting of the Mong, knitting of the Phu La, etc. silver carving and jewelry making of the Mong and Dao ethnic groups (Tinh 2020). Folk performing arts such as Khen dances of the Mong people performed in festivals (Tet, monthly market, love market) are a unique cultural feature that attracts tourists.

Folklore knowledge such as experience in agricultural production, culinary arts with many famous dishes; Traditional pharmacology with the herbal bath of the Dao people, creating the uniqueness of the culture of the ethnic minorities in Sapa.

The art of folk music and dance of the ethnic groups in the area is very diverse and rich with many genres such as: Khen dance of the Mong people, folk dance of the Tay people, "Then", "Luon", "love" singing (Tinh 2020)...is the basis of Sapa's unique tourism products.

About traditional festivals, Sapa has about 10 festivals, including many special festivals, attracting tourists such as: "Roong Poo" festival of Giay people, "Put Tong" festival of Red Dao people , the festival "Nai Cong" of the Mong, the Dao, the Giay, the "Tet Dance" festival of the Dao, the "Gau Tao" festival of the H'mong, the "Down to the field" festival of the Tay people (Tinh 2020) ...creating a colorful and unique cultural picture, arousing tourists' desire to learn and experience. In addition, the Tay, Dao, and Giay ethnic groups have thousands of copies of ancient books in Nom script. In particular, in the town, there is an ancient stone carving area of Sa Pa which is carved with patterns showing images, maps, signatures, symbols, etc. Fairs in mountainous areas are not only a place for performances, trade activities, but also promote the traditional cultural values of the people of the upland ethnic groups.

The current status of community-based night tourism in Sapa is evaluated through 391 surveys of tourists participating in night tourism activities such as: going to the love market, experiencing the local culture (dance with flutes, enjoying local food), shopping at the night market, entertainment activities, health care (foot soak with traditional medicine). The survey results show that 85.7% of respondents under the age of 30 participate in these activities; 71.5% of people aged from 30 to 45 years old participate in night tourism; 64.3% of people over 45 years old participated. This shows that night tourism is popular among young tourists

Among night tourism activities, shopping at the night market is preferred by tourists with 76.2% of tourists participating. Love market activities, local cultural experiences with 54.7% and 54.5% of respondents participated. Health care activities (foot bath with medicinal leaves of the Dao people) appeal to 45.4% of the respondents. Nightlife entertainment services were attended by 42.3% of respondents. Through a survey of 391 tourists in Sapa, it is worth noting that shopping activities, local cultural experiences focus mainly on the under 45 age group, health care activities, entertainment activities. The focus is on people over 45 years old.

### 3.3. Evaluation of Factors Affecting the Development of Community-Based Night Tourism

#### 3.3.1. Exploratory Factor Analysis Result (EFA)

The first exploratory factor analysis was performed with 21 observed variables. These observed variables are loaded into factors with the results of the tests to ensure that the EFA is significant. Among the 21 observed variables, the variable X2 (Fresh Air) does not belong to any obvious factors when their binding coefficients are all less than 0.5. Sapa has a temperate and subtropical climate, so the air is cool all year round. This is also a prominent feature of Sapa that tourists know even before they come here. Therefore, the element of fresh climate in the natural environment in Sapa is natural. We can omit the observation variable X2 in the context study of this study.

After removing the variable X2, performing the second exploratory factor analysis (with 20 items) obtained the following results: KMO coefficient = 0.754 > 0.5 satisfying the requirements for performing EFA; Bartlett's test has statistical significance (Sig. = 0.000), can reject hypothesis H0 (correlation matrix is unit matrix), which means that the variables are related to each other should be eligible for EFA implementation.

The analysis results by Principal Components Analysis and Varimax rotation showed that there were 5 factors drawn from 20 observed variables. Cumulative coefficient = 72.6% > 50% and the value of Eigenvalues coefficients are both greater than 1, satisfactory. The factor loading presented in Table 3 shows that the factor loading coefficients of the variables are all greater than 0.5, so the observed variables are all important in the factors and have practical significance.

Table 3. Results of exploratory factor analysis (EFA) for independent variables

	Component				
	1	2	3	4	5
X1					.772
X3		.704			
X4		.734			
X5		.706			
X6		.782			
X7		.734			
X8		.848			
X9		.530			
X10			.512		
X11			.745		
X12			.741		
X13			.664		
X14			.607		
X15				.619	
X16				.611	
X17				.606	
X18					.720
X19	.855				
X20	.811				
X21	.891				

Source: Calculated from the author's survey data, 2022

Thus, the EFA results have shown that the factors affecting the development of community-based night tourism in Sapa include 5 variables. The first measure consists of 2 items (X1 and X18), named Environment Factor. Seven items (X3, X4, X5, X6, X7, X8 and X9) from the original two scales, Indigenous Culture and Nocturnal Activity are loaded as a factor. The author named this second measurement variable Culture & Service. The measure of security and safety of the destination after exploratory factor analysis is only 3 items (X15, X16 and X17). The remaining two measurement variables are Infrastructure and facilities of the destination (5 items), Tourism development policy (3 items) which do not change the items compared to the original proposal.

The results of exploratory factor analysis with the dependent variable showed that the coefficient KMO = 0.774, Cumulative coefficient = 75.6% > 50% and the value of the Eigenvalues coefficient is greater than 1, the Bartlett test has statistical significance (Sig. = 0.001) and any load factors are > 0.5. This shows that the dependent variable factor rotation is valid. The results show that the four measures of the dependent variable only load in a single factor.

Table 4. Result of exploratory factor analysis (EFA) for dependent variable

Items	Factor 1
Y1	.749
Y2	.605
Y3	.752
Y4	.738

Source: Calculated from the author's survey data, 2022

### 3.3.2. Check the Reliability of the Scale

Testing the reliability of Cronbach's Alpha scale reflects the degree of close correlation between observed variables in the same factor. The test shows which of the observed variables of the same factor, which contributes or does not contribute to the measurement of the factor concept. Cronbach's Alpha reliability coefficient method is used after EFA exploratory factor analysis to eliminate inappropriate variables because these garbage variables will create dummy variables. The authors test the reliability of 5 measurement variables for the independent variables and one dependent variable. The results are shown in Table 5.

The test results show that Cronbach's Alpha coefficients are all greater than 0.6. Thus, the scale of the groups of factors has high reliability, in which the scale of tourism development policy with 3 observed variables has the highest Cronbach's Alpha of 0.917. Besides, the relationship coefficients between the observed variable and the total variable are all greater than 0.3. Thus, the test concludes that the scale system is built with 6 variables to ensure good quality with 24 observed variables.

Table 5. Summary of Cronbach's Alpha values of the initial groups of factors

Factors	Cronbach's Alpha	Number of observed variables
Night climate	0.762	2
Culture & Service	0.892	7
Infrastructure, material and technical facilities	0.818	5
Safe, security	0.885	3
Tourism development policy	0.917	3
Developing community-based night tourism	0.854	3
<b>Total of observed variables</b>		<b>24</b>

Source: Calculated from the author's survey data, 2022

### 3.3.3. The Average Value of the Scales

Analyzing the factors affecting the development of night tourism in Sapa, the authors performed descriptive statistics from the data collected according to five variables measured from the EFA results. The author calculated the mean and determined the standard deviation of the scales. The obtained results are presented in Table 6.

Regarding the volatility and dispersion of the data, the deviation from the mean value of both measured variables is low (from 0.5971 to 0.7722), showing that the mean is representative in statistics. For the independent variables, visitors rated environmental factors the highest with an average score of 4,0422. Three factors: Security, safety, Culture & Services and infrastructure are evaluated at almost the same level with the average value of 3.8465 respectively; 3.8425 and 3.8123. The factor Tourism development policy was rated the lowest with an average value of 3,5422. The dependent variable (Development of community-based night tourism) is rated by tourists with an average value of 3.7039.

Table 6. Descriptive statistics with scales

Factors	Number of respondents	Minimum value	Maximum value	The average value	Standard deviation
Night climate	391	1.50	5.00	4.0422	0.5971
Culture & Service	391	2.14	5.00	3.8425	0.6548
Infrastructure, material and technical facilities	391	2.60	5.00	3.8123	0.6540
Safe, security	391	2.00	5.00	3.8465	0.7121
Tourism development policy	391	2.00	5.00	3.5422	0.7722
<b>Developing community-based night tourism</b>	<b>391</b>	<b>2.00</b>	<b>5.00</b>	<b>3.7039</b>	<b>0.6158</b>

Source: Calculated from the author's survey data, 2022

### 3.3.4. Linear Regression Analysis Results

Linear regression analysis was used to study the influence of independent variables on the development of community-based night tourism. The previous Pearson test showed no multicollinearity. Regression results in Table 7 show that all VIF variance exaggeration factors are in the allowable conditions (less than 10). The Durbin-Watson coefficient of the model is 1.639 (between 1.5 and 2.5). Thus, this model does not have autocorrelation of factors. The analysis results show that this model has a Sig significance level. = 0.001 so this regression model is significant with adjusted coefficient  $R^2 = 0.646$ .

Table 7. Linear regression analysis results

Factors	Coefficient $\beta$	Inspection T	Significance level
The coefficient of freedom	0.055	0.736	0.519
Night climate	0.140	3.488	0.021
Culture & Service	0.247	9.303	0.000
Infrastructure, material and technical facilities	0.285	3.582	0.006
Safe, security	0.419	1.405	0.001
Tourism development policy	0.225	2.093	0.004

Source: Calculated from the author's survey data, 2022

In this model, all five independent variables have a positive influence on the development of community-based night tourism. In which, "Security – safety" has the strongest influence with the coefficient  $\beta = 0.419$  (significance level sig.= 0.001). According to research by Hsieh (Hsieh and Chang 2006) shows that the factor "security and safety" is the top concern of tourists participating in night tourism, which is an important factor affecting the development of night tourism. Especially for the study area, Sapa, through the destination survey, it is shown that in order to develop night tourism activities based on local cultural values, security and safety factors need to be paid attention. The assurance of security and safety is determined under the following aspects: social order, no robbery, safe nightlife activities, tourists participating in local cultural experiences supported by indigenous people.

The second is the factor "infrastructure" with coefficient  $\beta = 0.285$  (significance level sig.= 0.006) that affects the development of community-based night tourism. The identified infrastructure elements include: convenient transportation system, night activities organized in central locations, diversified means of transport, easy access to recreational activities, health care. In Sapa, entertainment spots and night markets are located in the town center, with good infrastructure conditions. However, with health care points (bathing with medicinal leaves of the Dao people) in Ta Phin village, 15km from the center of Sapa town, the travel of tourists needs to be convenient. To develop these activities, it is necessary to invest in a quality road system, safety and security for tourists is the top concern.

The third factor affecting the development of community-based night tourism is the factor "culture and services" with the coefficient  $\beta = 0.247$  (significance level sig.= 0.000). According to Veronica, local cultural values have an important impact on the development of night tourism (Veronica et al., 2020), especially traditional cultural and artistic activities. In Sapa, the love market, the flute dance of the Mong people, the cuisine, and the customs and habits of the local ethnic groups are among the tourist attractions.

Tourism development policy coefficient  $\beta = 0.225$  (significance level sig.= 0.004) has an impact on the development of community-based night tourism in Sapa. With this level of influence, it is mainly assessed on the regulations of the local government and the willingness of the government to implement and solve problems in night tourism activities.

Environmental factors have the lowest influence with coefficient  $\beta = 0.140$  (significance level sig.= 0.021). This shows that the climate and environment of Sapa do not have much influence on community-based night tourism activities from the perspective of tourists. The fact in Sapa shows that the cool and cold climate in winter is an attraction for tourists when coming to Sapa to experience night tourism activities.

### Conclusions and Recommendations

Through determining the factors affecting the development of community-based night tourism in Sapa, the analysis results have shown that there are 5 influencing factors: (i) environment, (ii) culture and services, (iii) infrastructure, (iv) security and safety, (v) tourism development policy. Each group of factors has different impacts on the development of community-based night tourism in Sapa. In which, there are two groups of influencing factors: "security and safety" and "infrastructure" of the destination that have a strong impact on the development



of community-based night tourism. The group of environmental factors has the smallest impact. During the research process, the authors found that there are problems for the development of community-based night tourism. From there, we propose some ideas to improve the development of community-based night tourism as follows:

*For local authorities:* it is necessary to improve the policy system for the development of night tourism. Local authorities need to have a change in their awareness of developing community-based night tourism activities, identifying this as a specific tourism product of Sapa in the tourism development process. necessary investments in marketing, management, policies to support local people in the implementation of night tourism activities. Local authorities need to have specific policies in managing: nighttime hours of tourists, security and safety issues for visitors. Well-organized night activities will contribute to reducing pressure on the local community when organizing daytime tourism activities. Local authorities need to invest in infrastructure and technical facilities for night tourism activities: signs, parking lots, means of transport to create convenience for tourists.

*For local people:* it is necessary to be aware of the role of night tourism in tourism activities, this is a product that adds value to Sapa's tourism. At the same time, local people need to have positive support for tourists, professional service attitude to help tourists feel safe when participating in night tourism activities.

### Limitations

This study was conducted with domestic tourists, so the factors affecting the development of community-based night tourism with international tourists have not been identified. Second, this study shows that environmental factors have the lowest impact among the influencing factors. So, what causes tourists to rate environmental factors not high? What is the appeal of community-based night tourism products to tourists? The above problems proposed by the author will be solved in future studies.

### Credit Authorship Contribution Statement

**Phan Trinh Thi** - Investigation, Methodology, Writing - original draft, Supervision, Validation, Writing - review and editing.

**Nga Nguyen Thi Phuong** - Conceptualization, Software, Investigation, Methodology, Writing - original draft, Writing - review and editing (corresponding author)

**Hao Hoang Van** - Investigation, Writing - original draft, Writing - review and editing.

### Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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