Farmers' Capacity for Jatiluwih Agrotourism Management and Its Effects on Tourists' Satisfaction and Intention to Revisit

Tien Cathy Patricia[1], I Gusti Ayu Oka Suryawardani[2], I Ketut Suamba[1] and Agung Suryawan Wiranatha[2]

[1]Agribusiness Study Program, Faculty of Agriculture, Udayana University
[2]Centre of Excellence in Tourism, Udayana University

Corresponding Author: cathypatricia13@gmail.com

ARTICLE INFO

Received
28 November 2019

Accepted
28 January 2020

Available online
01 March 2020

ABSTRACT

Capacity is the main element for farmers in achieving their goals. Farmer's Capacity consists elements of knowledge, attitude, and skills. With the increasing number of visits in Bali, especially Jatiluwih Agrotourism, farmers should be the subject of management so that they can fully enjoy the benefits of the visit. With the existence of agrotourism, agriculture and tourism can be a pair of harmonious sectors. Tourist's feedback on the satisfaction and intention to revisit can be an input in the effort to increasing the farmer's capacity in agrotourism management for its sustainability. This paper analyzes Farmer's Capacity for Jatiluwih Agrotourism Management and Its Influence toward Tourist's Satisfaction and Intention to Revisit. Primary and secondary data were obtained through interviews and filling out questionnaires with the Structural Equation Modeling (SEM) analysis method. The results of Partial Least Square (PLS) analysis show that farmer's capacity has a significant effect on tourists's satisfaction, which leads to tourists's intention to revisit. it is expected that higher capacity of agroutourism management among farmers will increase tourist's satisfaction which affects tourist's intention to revisit hence, improving the welfare of the community, especially farmers in Jatiluwih Agrotourism.

Keywords: Farmers' Capacity, Satisfaction, Revisit, PLS

INTRODUCTION

The agricultural sector has an important and strategic role in the development of the national economy. The agricultural sector has proven to be the most survive in the economic crisis and it opens awareness that the agricultural sector must continue to be strived as a basis for overcoming threats or crises and achieving national economic growth with full support from the government. The rapid development of

tourism in Bali has impacted the development of other sectors, especially agriculture. The role of the agricultural sector is declining while the role of the tourism sector is increasing. To minimize leakage and negative impacts of tourism development, the development of tourism attractions is recommended to optimize the potential of Bali-based natural and cultural tourism attractions and be directed at natural tourism attractions such as agrotourism, ecotourism, marine tourism, and rural tourism (Wiranatha and Suryawardani, 2018).

Jatiluwih Agrotourism is one of the favorite destinations. This is what makes Jatiluwih included in the World Cultural Heritage Site (WBD) by UNESCO. In addition, Jatiluwih Agrotourism has a management body that officially manages matters related to it. Tourist visits are increasing but farmers are still considered as objects in agrotourism activities. In facts, the benefits of visits have not been fully enjoyed by farmers. Therefore, farmers' capacity needs to be developed to build potential benefits in increasing information and knowledge transfer (Badamas, 2009 in Veronice et al, 2008).

The capacity of farmers in managing agrotourism must always be improved and developed in order to achieve the expected goals. This capacity is reflected in the knowledge, attitudes and skills of farmers. In agrotourism management, farmers should be made the main subject or executor involved directly. With the high capacity of farmers in managing together with stakeholders, it is expected to be able to increase Tourists' satisfaction and have implications for increasing revisit intention to improve the welfare of the community, especially farmers in Jatiluwih Agrotourism.

Based on the description above, research on "Farmers' Capacity in the Management of Jatiluwih Agrotourism and Its Effect on Tourists' satisfaction and Revisit Intention" is very important to be carried out. With the high capacity of farmers in managing agrotourism, it is expected to increase Tourists' satisfaction and have implications for increasing revisit intention to improve the welfare of the community, especially farmers in Jatiluwih Agrotourism.

Formulation of the problems

Based on the background description above, the formulation of the problems is as follows:

1. What are the effects of the capacity of farmers on tourists' satisfaction in Jatiluwih Agrotourism?

2. What are the effects of tourists' satisfaction on the revisit intention to Jatiluwih Agrotourism?

Research Purposes

The purposes of this research are:

1. Analyzing the capacity of farmers on Tourists' satisfaction in Jatiluwih Agrotourism.
2. Analyzing the effect of tourists' satisfaction on the revisit intention of tourists visiting Jatiluwih Agrotourism.

Hypothesis

Based on the previous description, seven research hypotheses are proposed so that the research objectives can be achieved, viz:

a. Hypothesis I

H_0: Farmers' knowledge does not significantly influence tourists' satisfaction.

H_1: Farmers' knowledge has a significant effect on tourists' satisfaction.

b. Hypothesis II

H_0: The attitude of farmers does not significantly influence tourists' satisfaction.

H_2: Farmers' attitudes significantly influence the management of tourist satisfaction.

c. Hypothesis III

H_0: Farmers' skills do not significantly influence tourists' satisfaction.

H_3: Farmers' skills significantly influence tourists' satisfaction.

d. Hypothesis IV

H_0: Tourists' satisfaction does not significantly influence tourists' revisit intention.

H_4: Tourists satisfaction has a significant effect on tourists' revisit intention.

LITERATURE REVIEW

Farmers' Capacity

Marliati (2008) defines the capacity of farmers as the power of farmers to run an ideal farm in accordance with the expected goals (better farming, better living, better business, and better environment). Suprayitno (2011) added that the level of capacity is related to knowledge, attitudes, and abilities in overcoming various problems faced by farmers in terms of technical, managerial, and social skills.

Tourists' Satisfaction

Kotler (2002) defines that Tourists' satisfaction is a feeling of pleasure or disappointment that arises from the results of comparing expectations with the reality experienced. In other words, that Tourists' satisfaction is a comparison between the

performance of the products produced and the performance perceived by tourists. If it is below expectations, tourists are not satisfied. If performance meets expectations, tourists are satisfied. If the performance exceeds expectations, tourists are very satisfied.

Revisit Intention

According to Ferdinand (2011), intention to revisit is a behavior that arises as a response to objects that indicate the customer's desire to make a repeat purchase. Interest in repeat visits can also be interpreted as part of the visitor loyalty stage. Revisit intention is the desire and actions of customers to make a repeat visit because of the satisfaction received (Puspitasari, 2011).

RESEARCH METHODS

The research was conducted from May to October 2019 at Jatiluwih Agrotourism. This location determination was done purposively based on various certain considerations. The study was conducted with respondents of farmers and tourists in Jatiluwih Agrotourism using questionnaire and interview methods. Sampling using simple random sampling method and combined with accidental sampling method. The total sample was 100 respondents consisting of 50 farmers and 50 tourists. Analysis of data using the analysis of the Structural Equation Model (SEM) with the help of SmartPLS 3.0 software. The indicators used were 46 divided into five factors.

Contribution of Stakeholders to the Jatiluwih Agrotourism Community

Contributions made by stakeholders in economic matters such as support surrounding the production of seeds, purchase of liquid and solid fertilizers, as well as land management were as much as 247 million rupiahs by the Government of Tabanan Regency. In addition, assistance such as solid fertilizers and irrigation improvements with irrigation improvement funds around 180 million rupiahs by the Provincial Government of Bali, and a special financial assistance fund (BKK) of 50 million rupiah. Of the revenue funds, operational management divides funds for agency operations 10%, facility and infrastructure development 20%, operational management 35%, and villages and regional governments 35%. Operational funds consist of 12.25% for operational needs such as office stationery. In addition, 5.25% for Corporate Social Responsibility (CSR) and 17.5% for wages to HR in Operational Management. The village and regional government funds

consist of 15.75% for the regional government and 19.25% for the village and organization of the irrigation system of Subak. The village and subak funds consisted of 5.775% for the Jatiluwih Traditional Village, 4.8125% for the administrative village, 4.0425% for the Jatiluwih Subak, 3.85% for the Gunungsari Customary Village, 0.385% for the Subak Abian Jatiluwih, and by 0,385% for Subak Abian Gunungsari. The contribution of the Operational Management of Jatiluwih Tourism Destination Region to Subak can be said to be unfavorable because farmers are only used as objects or supporters of tourism. This is evident from the number of payments given to subaks of only 4.8125% of 100% of total revenue funds.

The operational management of the Jatiluwih tourism area should make farmers as an important subject because the main object of agrotourism is terraced rice fields where farmers have a large role in the management of agrotourism. Based on this, the distribution of subsidized funds for subaks should be greater which will have an impact on the welfare of farmers' families. This is because farmers know more about the technical aspects of the field and environmental conditions in the village of Jatiluwih including the types of plants suitable for planting during certain seasons.

Contributions in terms of social life are reflected in the empowered community so that they are involved in the development of Jatiluwih Agrotourism. This is consistent with the results of research in the attitude factor of farmers (X2) on the indicator of farmers empowered in the development of agrotourism (SP6) that the average farmer answered strongly agreed. The environmental benefits are also reflected in the existence of a 3R (reduce, reuse, recycle) Garbage Disposal Site (TPS) in Banjar Kesambahan Kelod and a rule that wastewater must not enter the irrigation channel so as not to pollute the rice fields. Promotion of the subak system in Bali was also carried out for example at the Majapahit International Travel Fair in Surabaya. The Jatiluwih tourism management agency also held the Jatiluwih Festival for the third time in September 2019. The series of events included a dance performance from the PKK women’s organization of 400 people in front of the Pura Dewi Sri Subak Temple, a local culinary exhibition, camping and cultural camp (there is a traditional game involving 17 elementary and vocational schools).

RESULTS AND DISCUSSION

Characteristics of Respondents

The study was conducted on 100 respondents, namely 50 farmers and 50 tourists. Respondent characteristics discussed in this study include gender, age, education level, and country of origin of tourists.

Table 1. Characteristics of Jatiluwih Agrotourism Respondents in 2019

No	Characteristics	Category	Number of people		Percentage (%)
			Farmers	Tourists	
1	Age	≤15 years old		3	1
		16–25 years old	1	16	17
		26–55 years old	20	28	48
		≥56 years old	29	3	32
2	Sex	Male	35	22	57
		Female	15	28	43
3	Level of education	Elementary school		18	18
		Middle School	9	3	12
		High School / Vocational School	12	6	18
		Diploma / Bachelor Degree	11	41	52
4	Country of origin	Indonesia	50	18	68
		France		12	12
		The USA		4	4
		Spain		4	4
		Australia		2	2
		Germany		2	2
		Italy		2	2
		etc		6	6

Outer Model Evaluation

1. Validity test

a) Convergent Validity

i) Validity Indicator

The validity of convergence reflects the strength of the interlation between variables and their indicators. In Figure 1 (before being dropped) there are eleven indicators that have a loading factor value <0.7, that is, variable X1: PP3; PP8; PP9; PP10; PP11; X2: SP9; SP10; SP13; SP14, X3: KP6, and KP7. According to Chin (1998), the loading factor value below 0.7 must be dropped so that the PLS analysis is repeated. After re-analysis, the loading factor value of the whole indicator meets the convergence validity criteria. Figure of the model before dropping the indicator can be seen in Figure 1 while the model figure after dropping the indicators in Figure 1, can be seen in Figure 2.

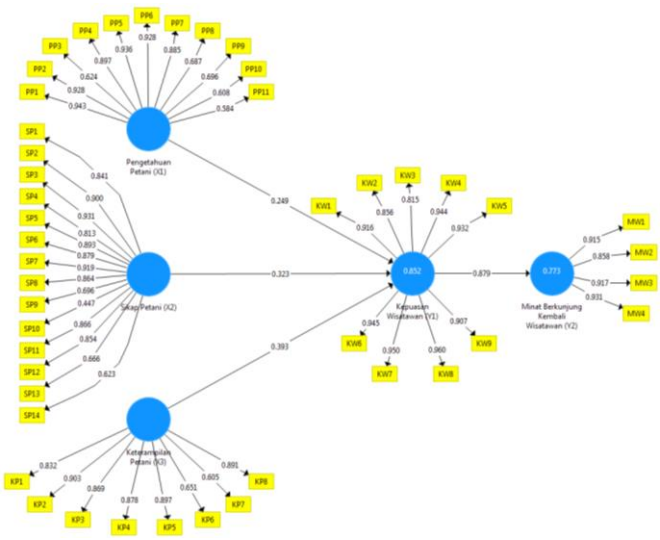


Figure 1. Initial Model

Description of Figure 1

Farmers' Knowledge (X1)

PP1 : Farmers' knowledge in identifying potentials and utilizing opportunities for farming & agrotourism (such as tracking and cycling)

PP2 : Farmers' knowledge in marketing elements of agricultural products to tourists (such as brown rice, brown rice tea, coffee, cocoa, and oranges)

PP3: Farmers' knowledge in souvenir marketing elements for tourists

PP4: Farmers' knowledge in supporting facilities and infrastructure

PP5: Farmers' knowledge in maintaining environmental security as part of the implementation of the 7 charm of the tourism sector

PP6: Farmers' knowledge in maintaining environmental comfort as part of the implementation of the Sapta charm of the tourism sector

PP7: Farmers' knowledge in controlling pests and plant diseases in agrotourism

PP8: Farmer's knowledge in managing agrotourism

PP9: Farmers' knowledge in the promotion of agrotourism

PP10: Farmers' knowledge in maintaining the sustainability of farming & agrotourism resources and in pioneering & identifying the development of tourism potential

PP11: Mastering theoretical concepts in the field of agricultural knowledge and resources, agricultural development, agricultural science and technology in general and the theoretical concepts of special sections in the field of knowledge in depth.

Farmers' Attitude (X2)

SP1: Having the awareness to maintain a harmonious relationship with God Almighty

SP2: Have the obligation to do something for nature and humans as a respect for God Almighty

SP3: Attitudes of farmers in maintaining harmonious relations with the community, farmers, and tourists visiting Jatiluwih Agrotourism

SP4: Attitudes of farmers in providing aspirations / opinions in the development and management of community-based agrotourism

SP5: Farmers are involved and play an active role in the development of agrotourism

SP6: Farmers are empowered in developing agrotourism

SP7: Farmers are responsible for environmental preservation

SP8: Attitudes of farmers in participating in various trainings to realize agrotourism sustainability

SP9: Farmer's attitude towards cultural preservation of *subak* (SP9),

SP10: Farmers give a positive interpretation of tourists visiting agrotourism so that tourists enjoy agrotourism attractions

SP11: Farmers' attitude in participating in environmental preservation ceremonies

SP12: Attitudes of farmers to the law and spatial regulations stipulated by the government

SP13: Farmers value local culture in agrotourism management

SP14: Farmers have a high commitment and are responsible for the sustainability of agrotourism

Farmers' Skills (X3)

KP1: Farmers' skills in agrotourism development training

KP2: Farmers' skills in implementing tradition and culture

KP3: Farmers' skills in protecting the environment

KP4: Farmers' skills in developing community-based agrotourism

KP5: Farmers' skills in improving the ability to manage agrotourism businesses

KP6: Farmers' skills in training in making crafts and souvenirs for visitors

KP7: Farmers' skills in improving communication skills with tourists

KP8: Farmers' skills in maintaining sustainable agrotourism

Tourists' Satisfaction (Y1)

KW1: Tourists' satisfaction for services obtained at Jatiluwih Agrotourism

KW2: Tourists' satisfaction of food and drinks served at restaurants in Jatiluwih Agrotourism

KW3: Tourists' satisfaction on handicrafts sold at Jatiluwih Agrotourism

KW4: Tourists' satisfaction for safety and comfort in Jatiluwih Agrotourism

KW5: Tourists' satisfaction at Jatiluwih Agrotourism attractions such as tracking and cycling

KW6: Tourists' satisfaction in the hospitality of farmers and Jatiluwih people

KW7: Tourists' satisfaction on agricultural products marketed in Jatiluwih Agrotourism (such as brown rice and brown rice tea)

KW8: Tourists' satisfaction in enjoying the beauty of rice terraces in Jatiluwih

KW9: Tourists' satisfaction on all activities in Jatiluwih.

Revisit Intention (Y2)

MW1: Tourists' interest in revisit intention to Jatiluwih Agrotourism

MW2: Promoting Jatiluwih Agrotourism to friends and relatives

MW3: Recommend Jatiluwih Agrotourism to friends and relatives

MW4: Making Jatiluwih Agrotourism the first choice for the next vacation.

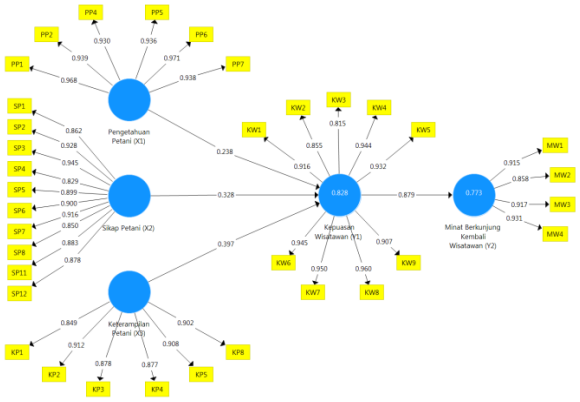


Figure 2. Final Model

Table 3. Evaluation of Outer Models

Variable	Composite Reliability	Cronbach's Alpha	AVE
X1	0,981	0,977	0,897
X2	0.971	0,974	0,791
X3	0,946	0,957	0,789
Y1	0,975	0,979	0,837
Y2	0,927	0,948	0,820

ii) Factor of Reliability

Based on the results of the study in Table 3 the value of Cronbach's alpha on all factors is more than 0.7. This shows that the factors are said to be reliable.

iii) Value of AVE

In Table 3, you can see the AVE value of all factors above 0.5. This shows that the factors are able to explain more than half the variants derived from the indicators.

b. Discriminant Validity

The discriminant validity evaluation was carried out in two stages, namely by looking at the cross loading value and comparing the root of the AVE value.

i) Cross Loading Value

Table 4. Cross Loading Value

	X1	X2	X3	Y1	Y2
PP1	**0,968**	0,811	0,811	0,763	0,652
PP2	**0,939**	0,871	0,7871	0,838	0,678
PP4	**0,930**	0,769	0,769	0,741	0,653
PP5	**0,936**	0,862	0,862	0,837	0,716
PP6	**0,971**	0,787	0,787	0,748	0,619
PP7	**0,938**	0,738	0,738	0,700	0,603
SP1	0,650	**0,862**	0,830	0,753	0,674
SP2	0,751	**0,928**	0,842	0,783	0,675
SP3	0,815	**0,945**	0,816	0,842	0,764
SP4	0,723	**0,829**	0,679	0,715	0,707
SP5	0,820	**0,899**	0,731	0,825	0,703
SP6	0,741	**0,900**	0,817	0,765	0,661
SP7	0,825	**0,916**	0,816	0,880	0,704
SP8	0,781	**0,850**	0,769	0,826	0,631
SP11	0,737	**0,883**	0,782	0,722	0,712
SP12	0,737	**0,878**	0,793	0,700	0,667
KP1	0,680	0,759	**0,849**	0,796	0,743
KP2	0,708	0,811	**0,912**	0,764	0,711
KP3	0,704	0,819	**0,878**	0,803	0,757
KP4	0,478	0,684	**0,877**	0,658	0,694
KP5	0,658	0,800	**0,908**	0,767	0,720
KP8	0,756	0,813	**0,902**	0,806	0,803
KW1	0,742	0,817	0,794	**0,916**	0,773
KW2	0,584	0,727	0,762	**0,855**	0,693
KW3	0,764	0,759	0,713	**0,815**	0,752
KW4	0,775	0,809	0,771	**0,944**	0,819
KW5	0,756	0,825	0,869	**0,932**	0,812
KW6	0,765	0,801	0,825	**0,945**	0,852
KW7	0,770	0,819	0,786	**0,950**	0,833
KW8	0,780	0,831	0,836	**0,960**	0,890
KW9	0,782	0,868	0,771	**0,907**	0,802
MW1	0,660	0,775	0,768	0,802	**0,915**
MW2	0,461	0,532	0,647	0,643	**0,858**
MW3	0,563	0,612	0,736	0,779	**0,917**
MW4	0,774	0,842	0,842	0,922	**0,931**

ii) Root Value of AVE

Based on Table 5, each AVE root value is greater than the correlation between factors and other factors. This shows that all latent factors have good validity.

Table 5. AVE Roots and Correlations

Factors	AVE	$\sqrt{AVE}$	Y1	X3	Y2	X1	X2
Y1	0,837	0,915	**0,915**				
X3	0,789	0,888	0,866	**0,888**			
Y2	0,820	0,905	0,879	0,833	**0,906**		
X1	0,897	0,947	0,818	0,754	0,692	**0,947**	
X2	0,791	0,890	0,882	0,883	0,776	0,855	**0,890**

2. Reliability Test

Based on Table 3, the composite reliability value of all factors has a value greater than the required standard value of 0.70. This shows there is stability and consistency of internal indicators.

Inner Model Evaluation

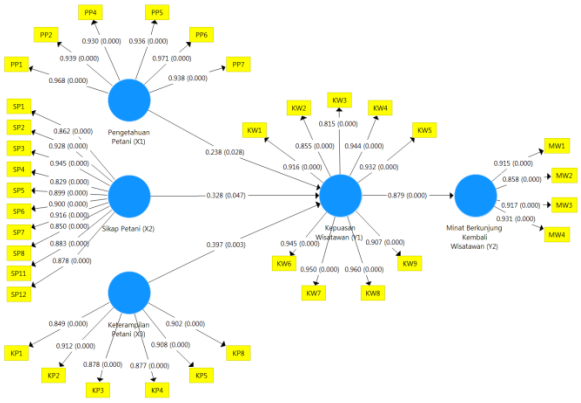


Figure 3. Structural Equation Model based on Smart PLS Version 3.0.

The model in this study is aimed at looking at the capacity of farmers towards tourist satisfaction and revisit intention that is modeled through the structural equation model (SEM) to obtain the best model. In this model, it involves five latent variables: farmers 'knowledge is reflected by 6 indicators, farmers' attitudes are reflected by 10 indicators, farmers 'skills are reflected by 6 indicators, tourist satisfaction is reflected by 9 indicators, and tourists' revisit intention is reflected by 4 indicators. Based on the model framework and this research hypothesis, the structural equation model can be seen in Figure 3.

1. GoF Test

The feasibility of a structural equation model, in its entirety, was carried out by calculating the value of Goodness of Fit (GoF) using the following formula (Tenenhaus et.al, 2005 in Suryawardani, 2018):

$$GoF = \sqrt{Communality\ x\ R^2} = \sqrt{\overline{AVE}\ x\ \overline{R^2}}$$

Using this formula, the GoF of the model is calculated at 0.813. This shows that the model can be accepted and interpreted.

Table 6. Model Fit

	Saturated Model	Estimated Model
SRMR	0,072	0,073
Chin-Square	1.230,537	1.235,711
NFI	0,645	0,652

2. Path coefficients

Table 7. Path Coefficients

Path	Original Sampel	Sampel Mean	Standard Deviation (STDEV)	P-value
X1→Y1	0,238	0,240	0,106	0,026
X2→Y1	0,328	0,303	0,157	0,037
X3→Y1	0,397	0,414	0,128	0,002
Y1→Y2	0,879	0,879	0,038	0,000

3. Test of R^2

Table 8. R^2 values

Factors	R^2	R^2 Adjusted
Tourist Satisfaction (Y1)	0,828	0,817
Revisit Intention (Y2)	0,773	0,769

Based on Table 8, it can be seen that the R^2 value of tourist satisfaction variable is 0.828. This means that 82.8% of tourist satisfaction variables can be explained by farmers' knowledge, farmers' attitudes, farmers' skills and the remaining 17.2% is explained by other variables outside the research model. R^2 value of tourist revisit intention variable is 0.773, meaning that the revisit intention variable of 77.3% can be explained by tourist satisfaction and the remaining 22.7% is explained by variables outside the research model. The value of R^2 on the variable of tourist satisfaction and tourist revisit intention has a strong predictive power because the value of R^2 is above 0.75 (Henseller et.al., 2009 in Santoso, 2018).

DISCUSSION

The Effects of Farmers' Capacity on Tourists' Satisfaction in Jatiluwih Agrotourism

The effects of farmers' capacity on tourists' satisfaction in Jatiluwih Agrotourism are discussed in three sections as follows:

1. Effects of Farmers' Knowledge on Tourists' Satisfaction

The results of testing the first hypothesis showed that the relationship between farmers' knowledge factor (X1) and tourist satisfaction (Y1) showed the Original Sample (O) value of 0.238 and P-value of 0.026 <0.05, then H_0 was rejected. Based on the results of data processing, it can be concluded that the knowledge of farmers (X1) significantly influences tourist satisfaction (Y1), meaning that the knowledge of farmers with their indicators significantly influences tourists' satisfaction factors.

The most significant indicator contributing to this factor is the knowledge of farmers in maintaining environmental comfort as part of the implementation of the Sapta / seven-charm program in the tourism sector with a loading factor of 0.971 and a P-value of 0.026. In addition, the indicators that have the lowest significant value are farmers' knowledge in supporting facilities and infrastructure with a loading factor value of 0.930 and a P-value of 0.026.

2. The Effects of Farmers' Attitude on Tourists' Satisfaction

The second hypothesis testing results show that the relationship between farmers' attitude factor (X2) and tourists' satisfaction (Y1) shows the Original

Sample (O) value of 0.328 and the P-value of 0.037 <0.05, then H_0 was rejected. Based on the results of data processing, it can be concluded that the attitude of farmers (X2) significantly influences tourists' satisfaction (Y1). This means that in this study the attitude of farmers with their indicators significantly influences tourists' satisfaction factors.

The most significant indicator contributing to this factor is the attitude of farmers in maintaining a harmonious relationship with the community, farmers, and tourists visiting Jatiluwih Agrotourism with a loading factor of 0.945 and a P-value of 0.037. In addition, the indicator that has the lowest significant value is the attitude of farmers in providing aspirations / opinions in the development and management of community-based agrotourism with a loading factor of 0.829 and a P-value of 0.037.

3. Effects of Farmers' Skills on Tourists' Satisfaction

The results of testing the third hypothesis showed that the relationship between farmers' skill factors (X3) and tourists' satisfaction (Y1) showed the Original Sample (O) value of 0.397 and the P-value of 0.002 <0.05, then H_0 was rejected. Based on the results of data processing, it can be concluded that the skills of farmers (X3) have a significant relationship to tourists' satisfaction (Y1). This means that in this study, the skills of farmers and their indicators significantly influence tourists' satisfaction factors.

The most significant indicator contributing to this factor is farmers' skills in carrying out traditions and culture with a loading factor value of 0.912 and a P-value of 0.002. In addition, the indicator that has the lowest significant value is farmers' skills in agrotourism development training with a loading factor of 0.849 and a P-value of 0.002.

The Effects of Tourists' Satisfaction on Revisit Intention of Tourists

The fourth hypothesis testing results indicate that the relationship of tourists' satisfaction factor (Y1) with the revisit intention of tourists (Y2) shows the Original Sample (O) value of 0.879 and the P-value of 0.000 <0.05, then H_0 was rejected. Based on the results of data processing, it can be concluded that tourists' satisfaction has a significant relationship to the revisit intention of tourists, meaning that in this study, tourists' satisfaction factors with their indicators influence the factors of revisit intention significantly. This is in accordance with the research of Alit Purnami (2018) which states that tourists'

satisfaction has a significant effect on the revisit intention.

Among the nine variables, the variable that has the biggest loading factor value is satisfaction, which is reflected in enjoying the beauty of the terraced rice fields in Jatiluwih with a loading factor value of 0.960 and a P-value of 0,000. In addition, the indicator that has the lowest significant value is the satisfaction of tourists in handicrafts sold at Jatiluwih Agrotourism with a loading factor of 0.815 and a P-value of 0,000.

CLOSING

Based on the results and discussions that have been carried out in this research, it can be concluded: (1) The capacity of farmers has a significant influence on tourists' satisfaction in Jatiluwih Agrotourism: a) Farmers' knowledge has a significant effect on the satisfaction of Jatiluwih Agrotourism tourists. b) Farmers' attitudes significantly influence the satisfaction of Jatiluwih Agrotourism. c) Farmers' skills significantly influence the satisfaction of Jatiluwih Agrotourism and (2) Tourists' satisfaction significantly influences the revisit intention of tourists to Jatiluwih Agrotourism.

Based on the results of the discussion and conclusions obtained from this study, a number of suggestions are made as follows: (1) The availability of facilities and infrastructure support from stakeholders should be given more comprehensively and clearly announced to each farmer or subak's member in order to increase farmers' knowledge in Jatiluwih Agrotourism . (2) Meetings or discussions held in the development and management of Jatiluwih Agrotourism should be more motivating for the intention of every farmer or subak's member to improve the attitude of the farmers. Women farmers need to be encouraged to participate and every aspiration / opinion given by the participants' present needs to be accounted for by the stakeholders. (3) Agrotourism development training needs to encourage each subak member and especially farmers aged ≥56 years old so that they have improved skills. In addition, the budget and intensity in agrotourism development training needs to be increased. Diversity of training that needs to be held such as postharvest training, pest and disease control, and tourist assistance training for farmers. (4) Crafts that are sold need variations in type, product quality, and packaging must be improved in order to increase the satisfaction and revisit intention of tourists to Jatiluwih Agrotourism. Craft products sold must also

represent Jatiluwih Agrotourism. In addition, the management body should have information about explaining the life cycle of rice and how it is processed from land preparation to postharvest so that tourists, especially from foreign countries, receive complete and clear information about the commodity.

REFERENCES

Ferdinand A. T. dan A. N. 2011 *Analisis Pengaruh Kualitas Produk dan Kualitas Pelayanan terhadap Kepuasan Pelanggan untuk Mendorong Minat Beli Ulang (studi pada Pengguna Nokia Semarang)*. Semarang: Universitas Dipenogoro.

Kotler, Philip. 2002. *Marketing Management* (Millenium Edition). Jakarta: Pearson Education and Prehanllindo.

Marliati, Sumardjo, Asngari PS, Tjitropranoto P, Saefuddin A. 2008. Faktor-Faktor Penentu Peningkatan Kinerja Penyuluh Pertanian dalam Memberdayakan Petani (Kasus di Kabupaten Kampar Provinsi Riau). Jurnal Penyuluhan. 4 (2): 92-99.

Purnami, A., and I G.A.O Suryawardani. 2018. The effect of the Quality Services on the Visitors' Satisfaction and Desire to Pay a Revisit to the Bali Pulina Agrotourism. *E-Journal Of Tourism*. 5(2): pp 62-71.

Puspitasari, A. N. 2011. *Analisis Pengaruh Kualitas Produk dan Kualitas Pelayanan terhadap Kepuasan Pelanggan untuk Mendorong Minat Beli Ulang*. Univeristas Dipenogoro. Semarang.

Santosa, Paulus Insap. 2018. Metode Penelitian Kuantitatif (Pengembanganan Hipotesis dan Pengujiannya Menggunakan SmartPLS). Yogyakarta: Andi.

Suprayitno, A. 2011. Model Peningkatan Partisipasi Petani Sekitar Hutan Dalam Mengelola Hutan Kemiri Rakyat: Kasus Pengelolaan Hutan Kemiri Kawasan Pegunungan Bulusaurang Kabupaten Maros Sulawesi Selatan. [Desertasi]. Bogor. Sekolah Pascasarjana Institut Pertanian Bogor.

Suryawardani, I. G. A. O. 2018. *Evaluation of Marketing Strategy of Sanur Village Festival Based on Visitors' Behaviour*. International Journal of Applied Business and Economic Ressearch, Vol 16 Number 2, 2018, page 216-276. ISSN 0972-7302.

Veronice, Helmi, Henmaidi, dan Ernita Arif. 2008. "Pengembangan Kapasitas dan kelembagaan Petani Kecil di Kawasan Pertanian melalui Pendekatan Manajemen Pengetahuan." Jurnal of Applied Agricultural Science and Technology. Vol 2 (2): 1-10.

Wiranatha, A.S., I G.A.O., Suryawardani, dan I K.G Bendesa. 2018. Model of Foreign Tourist's Loyalty in Cultural and Heritage Tourism. Journal of Global Stochastics Analysis.

Wiranatha, A.S., I G.A.O., Suryawardani, I K.G Bendesa dan M. Antara. 2018. Model of Foreign Tourist's Loyalty on Marine Tourism to Visit Bali. International Journal of Multidisciplinary Educational Research, Volume 5, Issue 3 (2), 2016.

The Roles of Farmers in the Development of Belimbing Village Agrotourism and Its Effect on Satisfaction and Loyalty of Tourists

Ni Nyoman Widari[1], I Gusti Ayu Oka Suryawardani[2], I Ketut Rantau[1] and Agung Suryawan Wiranatha[2]

[1]Agribusiness Study Program, Faculty of Agriculture, Udayana University
[2]Centre of Excellence in Tourism, Udayana University

Corresponding Author: komangwidari4@gmail.com

ARTICLE INFO

Received
30 November 2019

Accepted
30 January 2020

Available online
01 March 2020

ABSTRACT

Belimbing Village Agrotourism is an agriculture-based sustainable agrotourism that has extensive terraced rice fields and stretches with a variety of natural potential around. Development of Belimbing Village Agrotourism is a tourism activity without changing the use and damage of agricultural land and can help the economy of the community in Belimbing Village. This study aims to determine the effect of farmers' knowledge, farmers' skills and farmers' attitudes on the satisfaction of Belimbing Village Agrotourism, the effect of tourists' satisfaction on visitor loyalty visiting Belimbing Village Agrotourism and Belimbing Village Agrotourism contribution to the welfare of the community in Belimbing Village. Data analysis method used is quantitative and qualitative analysis methods. The population in this study were farmers in Belimbing Village Agrotourism and tourists visiting Belimbing Village Agrotourism using 60 respondents, 30 people for farmers and 30 people for tourists. The model was designed using a Smart PLS-based Structural Equation Modeling (SEM) approach that was analyzed using a computer. The results showed that farmers' knowledge had a significant influence on tourists' satisfaction ($p = 0.031$). Farmer skills have a significant influence on tourist satisfaction ($p = 0.024$). Farmer's attitude has a significant effect on tourist satisfaction ($p = 0{,}000$). Tourist satisfaction has a significant effect on tourist loyalty ($p = 0{,}000$). The contribution of the Belimbing Village Agrotourism in terms of economy, environment and social has a positive impact on the welfare of the community in the Belimbing Village. Based on the results of the study, it is hoped that the Belimbing Village Agrotourism can maintain and improve farmers' knowledge, farmers' skills and farmers' attitudes, so that visiting tourists are satisfied and generate tourist loyalty to visit again.

Keywords: Role of Farmers, Agrotourism Development, Tourists' Satisfaction, Tourists' Loyalty

INTRODUCTION

Indonesia is an agrarian country where the majority of the population works as farmers and has extensive land and biodiversity. The agricultural sector contributes greatly to the economy of the Indonesian population such as providing employment and a source of income for the majority of Indonesian people. However, the progress of development in the Indonesian agriculture sector until now has not been able to show satisfactory results when viewed from the level of welfare of farmers and their contribution to national income.

The decline in the agricultural sector in Bali is increasingly felt since the rapid development of the tourism sector as a mainstay sector to advance the economy of the Balinese people, but some of these benefits come out of the economic system in the form of tourism leakage. To minimize leakage suggested by Suryawardani, et.al. (2016) by utilizing local potential in developing businesses that support the development of Bali tourism without damaging nature and agriculture. Agriculture-based tourism such as Agrotourism is one of the efforts to develop natural potential that can be used as a source of income for the community. Belimbing Village Agrotourism is one of agriculture-based agrotourism that provides comfortable rural nature and has attractive and exotic tourism potential.

Agrotourism Development in Belimbing Village is tourism activities without converting land use and damaging agricultural land. This village has vast terraced rice fields and a variety of natural potentials that are around Agrotourism such as waterfalls that attract tourists to visit so that it becomes a benefit to generate large revenues for the Agrotourism. Sustainable Agrotourism in Belimbing Village is also one of the Agrotourism that utilizes natural resources optimally according to carrying capacity so that it does not cause environmental damage, respects the socio-culture of the local community, and ensures sustainable economic benefits thereby increasing the welfare of local people.

Based on the description above, research on the role of farmers in the development of the Belimbing Village Agrotourism and its influence on tourists' satisfaction and loyalty is important to find out the extent of the farmers' capacity in developing and managing Belimbing Village Agrotourism so that it has implications for tourists' satisfaction and loyalty.

Formulation of the problems

Based on the background description above, the formulation of the problems are as follows:

1. What is the effect of knowledge, skills and attitudes of farmers on the satisfaction of Belimbing Village Agrotourism tourists?
2. What is the effect of tourists' satisfaction on visitor loyalty visiting the Belimbing Village Agrotourism?
3. What is the contribution of the Belimbing Village Agrotourism to the welfare of the community in the Belimbing Village?

Research purposes

The purpose of this research is to analyze:

1. The influence of farmers' knowledge, skills and attitudes on the satisfaction of Belimbing Village Agrotourism tourists
2. The influence of tourists' satisfaction on visitor loyalty visiting the Belimbing Village Agrotourism.
3. Contribution of Belimbing Village Agrotourism to the welfare of the community in Belimbing Village.

METHODS

Research Location and Time

This research was carried out in Belimbing Village Agrotourism, located in Belimbing Village, Pupuan Sub-District, Tabanan Regency from June to August 2019. The research began from the process of data collection until completion.

Data Types and Sources

The type of research data consisted of qualitative data consisting of an overview of the Belimbing Village Agrotourism and the organizational structure of the Belimbing Village Agrotourism Management Agency and quantitative data which included the number of farmers who played a role in the development of the Belimbing Village Agrotourism, the number of tourists visiting the Belimbing Village Agrotourism, area, type and the number of facilities available, the characteristics of farmers and tourists and the answers to the questionnaire statements obtained from tourists. Data sources used in this study were obtained from primary data sourced from direct respondents and secondary data not sourced from respondents.

Method of Collecting Data

Data collection methods include observation, interviews using questionnaires and documentation as well as library research such as books, literature, scientific publications aimed at enrichment and data analysis.

Population and Sample

The research sampling is based on the requirements of the Smart-PLS analysis in which the requirements for the number of samples are between 30 to 100. The number of research samples is 60 respondents with the consideration that the number has met the minimum requirements in the analysis using SEM with the Smart-PLS program. The sampling technique is done by accidental sampling technique that is the technique of determining samples based on chance. Sampling of respondents was done by 30 people for farmers and 30 people for tourists to the Belimbing Village Agrotourism.

Research variables

The variables used in this study are latent variables consisting of exogenous latent variables symbolized by X and endogenous latent variables symbolized by Y. Exogenous latent variables are influencing variables while endogenous variables are the affected variables. The number of latent variables in this study was 5 variables, consisting of 3 exogenous latent variables and 2 endogenous variables. Exogenous latent variables are farmer knowledge denoted by (PP), farmer skills (KP) and farmer's attitude (SP), while endogenous latent variables namely tourists' satisfaction are denoted by (KW) and Loyalty by (LY).

Data analysis method

a) Descriptive analysis

In this research, descriptive analysis is used to identify the characteristics of tourists and farmers. Descriptive analysis uses frequency tables, namely the presentation of data and information in the form of simple tables / figures with the help of the Microsoft Excel for Windows program to interpret the results of respondents' answers.

b) Validity and Reliability Test

The quality of the questionnaire in this study will be tested using the validity and reliability test by looking at the outer loading value in the analysis of structural equation models with the smart-PLS program.

c) Evaluation of the measurement model (outer model) and Evaluation of the structural model (inner model)

Table 2.1
PLS Assessment Criteria

No.	Criteria	Explanation
	Evaluation of Structural Models	
1	R^2 for endogenous latent variables	The R^2 results for endogenous latent variables in the structural model indicate that the model is good, moderate, and weak.
2	Estimated path coefficient	The estimated value for the path relationship in the structural model must be significant. This significant value can be obtained by the bootstrapping procedure that also produces a T-value.
	Evaluation of Reflexive Measurement Models	
1	Loading Factor (LF)	The loading factor (lf) value must be> 0.7
2	Composite reliability	Composite reliability measures internal consistency and its value must be> 0.6
3	Average Variance Extracted (AVE)	The Average Variance Extracted (AVE) value must be> 0.5
4	Discriminant validity	The square root value of AVE must be> correlation value between latent variables
5	Cross Loading	Another measure of discriminant validity. It is expected that each indicator block has a higher loading value for each latent variable measured, compared to the indicator for other latent variables

Source: Chin (1998, in Ghozali 2014)

RESULTS AND DISCUSSION

Validity and Reliability Test

1. Validity test

a) Convergent Validity

Convergent validity is an evaluation that is seen based on the correlation between the reflexive indicator score and the latent variable score. Convergent validity test is done by looking at the loading factor value of each indicator against latent variables. According to Chin in Suryawardani, 2018 the value of loading factors from 0.6 to 0.7 can still be accepted provided that the indicator is not the only indicator in the latent variable. The results showed that all factor-loading values for each indicator showed values above 0.7. This means that all indicators are valid and feasible to use because they meet the criteria for convergent validity.

b) Discriminant Validity

Discriminant validity testing is carried out to ensure that each concept of each latent variable is different from other variables, by seeing the value of Cross Loading above 0.70 and the AVE value of each variable has a value above 0.5 (Ghozali, 2014). The results showed that the five latent variables had Cross Loading values above 0.70 and AVE above 0.5. This means that the discriminant validity test shows that all variables used in the study are said to be good or valid.

2. Reliability Test

Reliability testing can be done by looking at the Cronbach Alpha value and the reliability value of each contract. Variables are said to have high reliability if the Cronbach Alpha value exceeds 0.7

and the composite reliability value is 0.70. The results showed that all constructs measured in this study had a Cronbach's alpha value of all constructs 0.7 and composite reliability> 0.70 so it could be said that all constructs were reliable or all indicators were correctly represented constructs that were built.

Analysis of Structural Equation Models

Confirmatory analysis in this study is intended to draw inference about the knowledge, skills and attitudes of farmers to tourists' satisfaction and form visitor loyalty, which is modeled through a structural equation model (SEM) involving 5 latent variables, namely farmers 'knowledge reflected by 10 indicators, farmers' skills by 9 indicators, farmers' attitudes by 12 indicators, tourists' satisfaction by 10 indicators, and loyalty by 4 indicators. Based on the model framework and hypotheses, the specification of structural equation models can be seen in Figure 5.1.

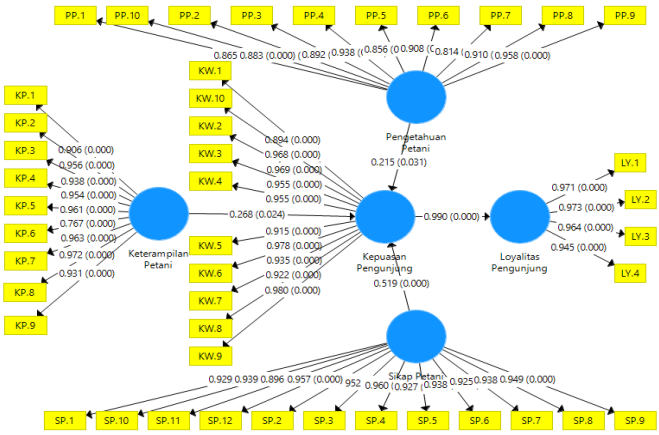


Figure 3.1

Structural Equation Modeling Output of the Role of Farmers in Belimbing Village Agrotourism Development and Its Effect on Tourists' Satisfaction and Loyalty

Results of analysis of measurement models (outer models)

Analysis of the measurement model or Outer model is a model to see the relationship between latent variables and their constituent indicators (Suryawardani, 2018). On indicators that are reflexive, estimator values can be seen from the outer loading value. The significance of this relationship is obtained through the bootstrapping process. In this study, using 3 exogenous variables, namely farmers' knowledge, farmers' skills and farmers' attitudes. Of the three variables that have the highest value, namely the attitudes of farmers, followed by the skills of farmers and the lowest is the knowledge of farmers while in endogenous variables there are 2

latent variables namely tourists' satisfaction and loyalty.

a) Measurement Model Test Results (Outer Model) on Farmers' Knowledge Variable

The output of the measurement model on the attitude variable reflected by 12 indicators can be seen in Table 3.1.

Table 3.1Output Measurement Model of Farmers' Knowledge

Code	Outer Loading	Standard Error	T-Statistic	
PP.9	0.958	0.022	44.421	**
PP.4	0.938	0.034	27.794	**
PP.8	0.910	0.031	29.121	**
PP.2	0.910	0.059	15.427	**
PP.6	0.908	0.056	16.254	**
PP.3	0.892	0.043	20.714	**
PP.10	0.883	0.063	14.061	**
PP.1	0.865	0.040	21.392	**
PP.5	0.856	0.099	8,645	**
PP.7	0.824	0.091	9.910	**

Source: Processed from primary data in 2019

b) Measurement Model Test Results (Outer Model) on Farmers' Skill Variable

The output of the measurement model on the farmers' skills variable reflected by 9 indicators which can be seen in Table 3.2.

Table 3.2
Output Measurement Model of Farmers' Skills

Code	Outer Loading	Standard of Error	T-Statistics	
KP.8	0.972	0.013	76.234	**
KP.7	0.963	0.022	44.715	**
KP.5	0.961	0.018	52.470	**
KP.2	0.956	0.019	49.307	**
KP.4	0.954	0.024	39.577	**
KP.3	0.938	0.039	24.173	**
KP.9	0.931	0.033	28.601	**
KP.1	0.906	0.040	22.810	**
KP.6	0.767	0.149	5.157	**

Source: Processed from primary data in 2019

c) Measurement Model Test Results (Outer Model) on Farmers' Attitude Variable

The output of the measurement model on the farmers' knowledge variable reflected by 10 indicators can be seen in Table 3.3.

Table 3.3
Output Measurement Model of Farmers' Attitude

Code	Outer Loading	Standard of Error	T-Statistic	
SP.2	0.971	0.012	78.593	**
SP.4	0.960	0.016	58.245	**
SP.12	0.957	0.020	48.053	**
SP.3	0.952	0.025	37.884	**
SP.9	0.949	0.029	32.631	**
SP.10	0.939	0.031	30.365	**
SP.8	0.938	0.026	35.899	**
SP.6	0.938	0.025	38.183	**
SP.1	0.929	0.032	28.601	**
SP.5	0.957	0.040	22.953	**
SP.7	0.925	0.031	29.828	**
SP.11	0.896	0.044	20.460	**

Source: Processed from primary data in 2019

d) Measurement Model Test Results (Outer Model) on Tourists' Satisfaction Variables Output of the measurement model on tourists' satisfaction variable reflected by 10 indicators can be seen in Table 3.4

Table 3.4
Output Measurement Model of Tourists' Satisfaction

Code	Outer Loading	Standard of Error	T-Statistics	
KW.9	0.980	0.011	86.256	**
KW.6	0.978	0.014	70.134	**
KW.2	0.969	0.019	50.020	**
KW.10	0.968	0.022	43.079	**
KW.4	0.955	0.032	29.984	**
KW.3	0.955	0.023	41.384	**
KW.7	0.935	0.034	27.534	**
KW.8	0.922	0.043	21.284	**
KW.5	0.915	0.034	27.241	**
KW.1	0.894	0.049	18.426	**

Source: Processed from primary data in 2019

e) Measurement Model Test Results (Outer Model) on Tourists' Loyalty Variables Output of the measurement model on visitor loyalty variables reflected by 4 indicators can be seen in Table 3.5.

Table 3.5
Output Model Measurement of Tourists' Loyalty

Code	Outer Loading	Standard of Error	T-Statistics	
LY.2	0.973	0.013	74.001	**
LY.1	0.971	0.017	55.701	**
LY.3	0.964	0.016	59.524	**
LY.4	0.945	0.033	29.026	**

Source: Processed from primary data in 2019

Results of structural model analysis (inner model)

Structural model analysis or inner model is used to see the relationship between variables that have the aim to test the relationship between one variable with another variable, both direct and indirect effects. The amount of direct effect with indirect effect is the total effect of exogenous variables on endogenous variables.

1. Direct Influence Between Variables

The test results of the direct influence of exogenous latent variables on endogenous variables indicate that the structural equation model that has been built is feasible to be used to test hypotheses in research. The complete significance test at the 5% level can be seen in Table 3.6.

Table 3.6
The Direct Effect of Exogenous Latent on Endogenous Latent in the Inner Model

Hypothesis	Exogenous Variables	Endogenous Variables	Original Sample	Standard Deviation	T Statistic	P Values
H1	Farmers' Knowledge →	Tourists' Satisfaction	0.215	0.100	2.158	0.031*
H2	Farmers' Skills →	Tourists' Satisfaction	0.268	0.118	2.267	0.024*
H3	Farmers' Attitude →	Tourists' Satisfaction	0.519	0.088	5.917	0.000**
H4	Tourists' Satisfaction →	Tourists' loyalty	0.990	0.003	339.432	0.000**

Source: Processed from primary data in 2019

2. The indirect effect of exogenous variables on endogenous variables

The direct effect of the variable with a significant relationship according to the explanation in Table 3.7, there are also several paths in which an exogenous variable has an indirect effect on the corresponding endogenous variable through mediation of other latent variables. Effects that are more indirect can be seen in Table 3.7.

Table 3.7
The indirect effect of exogenous latent on endogenous latent in the inner model

Exogenous Variables	Mediation Variable	Endogenous Variables	Original Sample	Standard Deviation	T. Statistics	P Values
Farmers' Knowledge →	Tourists' Satisfaction →	Tourists' loyalty	0.265	0.112	2.369	0.018
Keterampilan Petani →	Tourists' Satisfaction →	Tourists' loyalty	0.213	0.094	2.260	0.024
Sikap Petani	Tourists' Satisfaction →	Tourists' loyalty	0.514	0.091	5.633	0.000

Source: Processed from primary data in 2019

Contribution of Belimbing Village Agrotourism to Community Welfare

The development of the Belimbing Village Agrotourism is expected to contribute to the welfare of the surrounding community. So far, revenue has been obtained through Agrotourism activities such as parking fees and tracking and cycling retribution around the Belimbing Village Agrotourism area. Belimbing Village Agrotourism also provides accommodations such as villas and restaurants that prioritize the community in Belimbing Village as workers or employees. Absorption of labor for the surrounding community has greatly helped to reduce unemployment rates in the Belimbing Village.

CONCLUSIONS AND SUGGESTIONS

Conclusions

Based on the analysis of the data that has been done, the following conclusions can be drawn:

1) The influence of farmers' knowledge, skills and attitudes on tourists' satisfaction:
   a. Farmers' knowledge has a significant effect on the satisfaction of Belimbing Village Agrotourism tourists.
   b. Farmers' skills have a significant effect on satisfaction
   c. The attitude of the farmers has a significant effect on

tourists' satisfaction at the Belimbing Village Agrotourism.

2) Tourists' satisfaction has a significant effect on tourists' loyalty in the Belimbing Village Agrotourism.
3) Belimbing Village Agrotourism contributes to farm family income through distribution of tracking tickets, cycling and parking, is environmentally maintained and sustainable without damaging agricultural land and does not cause negative effects on the environment and the creation of good relations between management bodies, village heads and local governments, and between farmers with Agrotourism tourists.

Suggestions

Based on data analysis and conclusions that have been presented previously, this study proposes a number of suggestions as consideration for improving Belimbing Village Agrotourism, namely:

1) For the Belimbing Village Agrotourism, the results of the study showed that the variable of farmers' knowledge had the least influence on tourists' satisfaction, followed by the farmers' skills variable, then the farmers' attitude variable that had the highest influence, the farmers' skills and attitude in the Belimbing Village Agrotourism need to be maintained and one of them is to improve farmers' knowledge, one of which is the knowledge of farmers in promoting the Belimbing Village Agrotourism through social media so that it is better known among foreign and domestic tourists.
2) For further researchers, research should be carried out by developing research variables or adding indicators as measurements according to the conditions in the field and use different analysis tools.

Acknowledgments

The preparation of this thesis is inseparable from the guidance, assistance, and support from various parties, so that on this occasion I would like to express my gratitude to the Belimbing Village Agrotourism Management Agency for giving permission, facilities and assistance throughout the research process and thank farmers and tourists' respondents for their time. I also thank the undergraduate thesis

supervisor who has given me guidance so that the e-journal can be completed in a timely manner.

REFERENCES

Bungin, B.2011. "*Quantitative Research Methodology ".* Second Edition.Jakarta: Kencana.

Ghozali, I. 2014. *Structural Equation Modeling Alternative Methods with Partial Least Square Applications.* Semarang: Diponegoro University Publisher

Suryawardani, I G.A.O., and A.S Wiranatha.2018. *Evaluation of Marketing Strategy of Sanur Village Festival Based on Tourists'* Behaviour. Global Stochastics Analysis (GSA) Volume 5 Number 8 (2018), page 65-72. MUK Publication, ISSN 2248-94444.

Suryawardani, I.G.A.O., I K.G. Bendesa, M. Antara, D. Nursetyohasi, and A.S. Wiranatha.2016. *Implementation of Social Accounting Matrix in Calculating Tourism Leakage of Accommodation in Bali.* Internatinal Journal of Business and Economic Research, Volume 14 Number 12 (2016), page 9377-9405. Serial Publications PVT., LTD. New Delhi India. ISSN: 0972-7302.

Millennial Tourists in Bali: Motivation, Satisfaction and Revisit Intention

Dewa Ayu Nyoman Aridayanti[1], I Gusti Ayu Oka Suryawardani[2] and Agung Suryawan Wiranatha[2]

[1]Agribusiness Study Program, Faculty of Agriculture, Udayana University
[2]Centre of Excellence in Tourism, Udayana University

Corresponding Author: dewaayuaridayanti@gmail.com

ARTICLE INFO

Received
30 November 2019

Accepted
30 January 2020

Available online
01 March 2020

ABSTRACT

The Ministry of Tourism of the Republic of Indonesia has developed strategies to attract millennial tourists who are estimated to dominate the world tourism market, where Bali is ranked as the fourth most desirable destination for millennials around the world. One of the important factors for tourists in making a visit decision is motivation. Motivation can affect tourists' satisfaction that is triggered by evaluations through their experiences during a visit and it can affect their revisit intention. Decision making for revisit intention to a destination is actually the behavior of satisfied tourists. This research is a quantitative study with samples of millennial tourists visiting the areas of Ubud, Kuta, Seminyak, Canggu and Uluwatu. Research results were analyzed by Structural Equations Modelling (SEM) analysis usings SmartPLS software 3.0 version. The results showed that motivation consisting of push and pull factors has a significant effect on tourist satisfaction. Tourist satisfaction has a significant effect on the revisit intention. The push factor has a positive but not significant effect on the revisit intention while the pull factor has a significant effect on the revisit intention. Another result showed that 69% of millennial tourists make use of social media as a source of information about Bali. This is also the reason for the facts that 91% of millennial tourists prefer to arrange their own trips.

Keywords: Bali, motivation, satisfaction, revisit intention, millennial tourist.

INTRODUCTION

By the rapidly developing tourism industry, world tourism destinations face stiff competition which makes the destination must be able to win the competition in order to be chosen by the majority of tourists. Bali is one of the destinations that can compete with other destinations in the world, and Bali achieves several awards every year. In 2019, Bali was ranked fourth in the world

as the most popular destination for millennial around the world by the Hopper ticket booking application company. This list is obtained from the most popular, the most searched for, and the most monitored destination data by millennial tourists. In line with the Republic of Indonesia's Ministry of Tourism strategies to attract millennial tourists, Bali's ranking has opened up opportunities for Indonesia to target the Millennial Market. Millennial generation is driving big changes in the travel industry. Millennials are more likely to travel than other generations and tend to be motivated by the desire to adventure and explore something new. The tour process begins with the motivation that plays a role in making decisions about the destination to be visited. Push and pull factors in motivation may affect tourist satisfaction. Motivation triggers every evaluation that tourists can do about a destination through their experiences during their visit. The decision to make a repeat visit to a destination is a result of satisfied tourist behavior.

LITERATURE REVIEW

This research reviewed 14 previous studies as references sourced from national and international journals that have a common topic with tourist motivation, tourist satisfaction, revisit intention and millennial tourists or travelers. The studies include (1) *The Effect of Travel Motivation on Satisfaction: The Case of Older Tourist* by Vigolo, et.al (2018); (2) *The Effect of Motivation, Satisfaction and Perceived Value on Tourist Recommendation* by Huang, et.al (2015); (3) *Travel Motives, Perceptions and Satisfaction of Millennial Travelers: A Study in the East Coast of Sri Lanka* by Gnanapala, et.al (2017).

Research by Vigolo, et.al (2018) investigate the effect of tourist travel motivation on satisfaction; Huang, et.al (2015) analyze the effect of motivation, satisfaction and perceived value on tourist recommendations; and Gnanapala, et.al (2017) explore travel motivations, perceptions, satisfaction, and other behavioral characteristics of millennial tourists visiting the East Coast of Sri Lanka.

The research resulted in several findings including: (1) Vigolo, et.al (2018) found that motivation influences satisfaction but varies greatly depending on the age of the respondent; (2) Huang, et.al (2015) found that there was an influence of the three (motivation, satisfaction and perceived value) on tourist recommendations. The effect of perceived value and satisfaction on recommendations is greater than motivation. Motivation can be a predictor of recommendations; (3) Gnanapala, et.al (2017) research findings

show that push and pull factors motivate millennial tourists to visit the remote areas of Sri Lanka. Whereas tourist satisfaction is influenced by accommodation, infrastructure, service quality and tourist attractions.

This research refers to theories of tourism, generation, and tourist behavior and the concepts of motivation, satisfaction and revisit intention.

RESEARCH METHODS

Research was conducted to analyze and test causal relationships between constructs or latent variables. The cause of causal relationships is called exogenous latent constructs or variables X which consists of Push Factors as (X1) and Pull Factors as (X2), while the constructs that are affected are called endogenous latent namely Y variable consisting of Tourist Satisfaction (Y1) and Revisit Intention (Y2). To analyze and test the causal relationship between variables, a partial least square (PLS) statistical analysis tool was used, i.e. one of the structural equation modeling (SEM) statistical methods or variant-based structural equation models with smart PLS version 3.0 software.

The research population was millennial tourists coming to Bali, taken using cluster random sampling techniques in the areas of Ubud, Kuta, Seminyak, Canggu and Uluwatu of 100 millennial tourists respondents with a quota sampling of 50 foreign tourists and 50 domestic tourists. The number of samples is in accordance with the number of sample eligibility criteria for a variant-based or Partial Least Square (PLS) Structural Equation Modeling (SEM) analysis, which is a minimum of 30 and a maximum of 100 samples. In addition to using structural equation modeling (SEM) analysis with SmartPLS software version 3.0, the research findings were also analyzed descriptively and qualitatively to describe the characteristics of respondents, interpret the SEM analysis results and the results of hypothesis testing.

In the analysis of PLS-SEM (Partial Least Square-Structural Equation Modeling) the validity and reliability tests were carried out by focusing a few. In the validity test conducted with convergent validity criteria with outer loading value> 0.5 and discriminant validity with AVE value> 0.5. While reliability is indicated by Cronbach's Alpha value> 0.6 and composite reliability value> 0.6.

The structural equation model consists of measurement and structural models. Measurement model aims to determine the role of indicators in reflecting variables, while the structural model aims to examine the relationship

between other variables, both direct and indirect relationships and total effects. Later, after analyzing the data a structural equation model will be generated which will be evaluated both from the Measurement model and the Structural model. Evaluation of the Measurement model is done to assess the validity and reliability of the model, while the structural model or structural model evaluation is to evaluate the value of R^2, Effect size, and GoF (Goodness of FIT).

RESULTS AND DISCUSSION

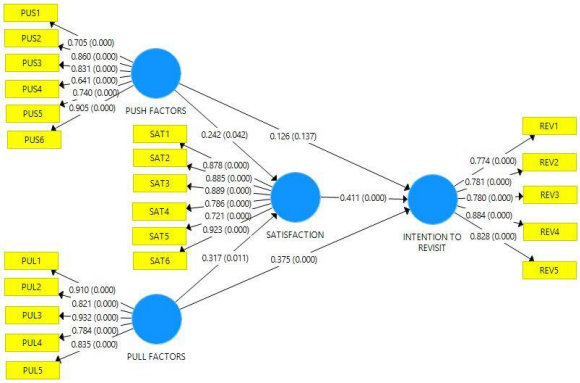
Tourist Characteristics

The results show several characteristics of millennial tourists coming to Bali, including: 1) 64% of millennial tourists were dominated by female tourists; 2) 44% of millennial tourists came from Europe with allocentric type; 3) 59% of millennial tourists are students; 4) 97% of the purpose of visiting is for a vacation; 5) 50% of visits with friends; 6) 69% used social media as a source of information about Bali; 7) 91% arrange their own visits.

Influence between Variables

Confirmative analysis in this research is intended to draw inference related to the influence of push and pull factors on satisfaction and revisit intention. Therefore, this research model involves 4 (four) latent variables, namely the push factor variable is reflected through 6 (six) indicators, the pull factor variable is reflected by 5 (five) indicators, the satisfaction variable is reflected by 6 (six) indicators and the revisit intention variable reflected by 5 (five) indicators. The structural equation model that is performed after going through the bootstrapping process can be seen in Figure 1 below.

1. Measurement model (outer model)



Source: Smart PLS Analysis Output 3.0, 2019.

Figure 1. Structural Output Model

Testing the validity of the research variables was conducted by convergent validity and discriminant validity with the outer loading and AVE criteria> 0.5. The results of the validity test can be seen in Table 1.

Table 1
Research Variable Validity Test Results

Variable	Indicator	Validity		
		Convergent	Discriminant/√AVE	AVE
Push Factors	PUS1	0.705	0.786	0.617
	PUS2	0.860		
	PUS3	0.831		
	PUS4	0.641		
	PUS5	0.740		
	PUS6	0.905		
Pull Factors	PUL1	0.910	0.858	0.736
	PUL2	0.821		
	PUL3	0.932		
	PUL4	0.784		
	PUL5	0.835		
Satisfaction	SAT1	0.878	0.811	0.722
	SAT2	0.885		
	SAT3	0.889		
	SAT4	0.786		
	SAT5	0.721		
	SAT6	0.923		
Revisit Intention	REV1	0.774	0.850	0.657
	REV2	0.781		
	REV3	0.780		
	REV4	0.884		
	REV5	0.828		

It can be seen in Table 1 that all indicators have an outer loading value and AVE> 0.5 thus, that all indicators are said to be valid.

Table 2
Research Variability Test Results

Variable	Reliability	
	Cronbach's Alpha	Composite Reliability
Push Factors	0.878	0.905
Pull Factors	0.909	0.933
Satisfaction	0.921	0.939
Revisit Intention	0.869	0.905

Table 2 shows that all variables meet the reliable criteria because they have Cronbach's Alpha and Composite Reliability values above 0.6.

2. Structural model (inner model)

The structural model was evaluated using R-square for endogenous latent variables, F^2 (effect size) and estimated path coefficients (Ghozali, 2014). The results of the evaluation of the three criteria are as follows:

Table 3
Value of Effect Size for Research Variables

	PULL	PUSH	REV	SAT
PULL			**0.220**	0.103
PUSH			0.026	0.060
REV				
SAT			**0.283**	

The value of the effect size of the push factors on the tourist revisit intention is 0.026 with a small influence category of the latent predictor variable, while the value of the effect size of the pull factors on the tourist revisit intention of 0.22 is categorized as the medium influence of the latent variable predictor. The effect size value of tourist satisfaction with revisit intention is 0.283 that is considered as the medium influence of the latent variable predictor.

Table 4
Statistical Value of Feasibility of Research Variables

Variable	Variable Type	Composite Reliability	AVE	R^2
Push Factor	Exogenous	0.905	0.617	NA
Pull Factor	Exogenous	0.933	0.736	NA
Satisfaction	Exogenous/ Endogenous	0.939	0.722	0.540
Revisit Intention	Endogenous	0.905	0.657	0.229
Average			0.683	0.385

Source: Primary Data, 2019.

Based on Table 4, it can be explained that the satisfaction variable R^2 value is 0.540, which indicates that the model is in the moderate category. Through this model, 54% of the variance of satisfaction variables can be explained by the push and pull factors. While the R square value of the revisit intention variable is 0.229, which indicates that the endogenous revisit intention model is in the weak category. The model shows that the 22.9% variance of the revisit intention variable can be explained by the tourist satisfaction variable.

The feasibility of a whole structural equation model or calculating the Goodness of Fit (GoF) value of the model can be done by referring to the formula introduced by Tanenhaus, et.al (2015) in Suryawardani (2018) as follows:

$$GoF = \sqrt{\text{Communality}} \times R^2 = \sqrt{\overline{AVE} \times R^2}$$

If referring to Table 4 for the above equation, $\overline{AVE}$ is the weighted average value with the weight obtained from the number of indicators for each variable. Using this formula, the GoF value from the model is obtained at 0.513 that is a measure that exceeds the threshold value of 0.50. With these calculations, the model can be accepted and interpreted.

The GoF (Goodness of Fit) test of the PLS model can also be tested through the SRMR (Standarized Roots Mean Square Residual) model value. The model will be categorized as fulfilling the GoF criteria if the SRMR value is <0.10 and it will be perfect fit if the SRMR value <0.80. The results of the GoF (Goodness of Fit) equation model are presented in Table 5 below.

Table 5
Goodness of Fit Research Model Test Results

	Saturated Model	Estimated Model
SRMR	0.096	0.096
NFI	0.589	0.589

Source: Primary Data, 2019.

Based on the test results in Table 5, it can be seen that the results of the Goodness of Fit (GoF) equation model is valued at 0.096 which indicates that the model is feasible and meets the GoF value criteria. In addition to the GoF value, Table 5 also shows the value of the

Normal Fit Index (NFI) of 0.589, which indicates that the structural model is categorized as feasible because the value has a range of values> 0.5. Therefore, it can be concluded that the research model is feasible to use to test the research hypothesis.

Table 6
Indirect Effect of Research Variables

Exogenous Variables -> Endogenous Var	Original Sample	Standard of Deviation	P Values	Sig
PUSH -> SAT	0.242	0.122	0.048	**
PULL -> SAT	0.317	0.121	0.009	**
SAT -> REV	0.411	0.087	0.000	**
PUSH -> REV	0.126	0.088	0.153	Ns
PULL -> REV	0.375	0.091	0.000	**

Source: Primary Data (data processed), 2019.

Description:
Ns : not significant
** : significant

Based on Table 6, it can be seen that the indirect effect of exogenous variables on endogenous variables with a significance level of 5% results in that of the five direct effects, there is only one insignificant effect, namely the influence of the push factor on the revisit intention. Push and pull factors significantly influence the satisfaction of millennial tourists who come to Bali with p value <0.05 and the original sample value is positive. This indicates that the push and pull factors of millennial tourists to visit Bali are in line with the tourists' expectations. Significant influence is shown by the satisfaction variable on revisit intention with the original sample value of 0.411 and p value of 0.000. Previous travel experience will affect the attitude of tourists to revisit to a destination. If on a previous visit tourists were satisfied, then the tourists would intend to revisit and vice versa.

This research supports the findings of Vigolo, et.al (2018), Gnapala (2017), Wiranatha (2018), Sultan (2012), Dayaour (2015), Baniya (2017), Khuong, et.al. (2014).

Table 7
Indirect Effect of Research Variables

Exogenous Variables -> Mediation -> Endogenous	Original Sample	Standard of Deviation	P Values	Sig
PUSH -> SAT -> REV	0.099	0.063	0.114	Ns
PULL -> SAT -> REV	0.13	0.053	0.015	**

Source: Primary Data (data processed), 2019.

Description:
Ns : not significant
** : significant

The indirect effect is the influence of exogenous variables on endogenous variables which are correlated through mediating variables. The indirect effects of this research are 1) the effect of push factors on revisit intention through satisfaction mediation; 2) the influence of pull factors on revisit intention through

satisfaction mediation. The results of the significance of the indirect effect test show that push factors do not affect the intention to revisit if mediated by satisfaction. The driving factor still does not have a significant effect on the intention to revisit directly or indirectly.

Table 8
The Total Effect of Exogenous Latent on Endogenous Latent

Exogenous Variations -> Endogenous	Original Sample	Standard of Deviation	P Values	Sig
PUSH -> SAT	0.242	0.122	0.048	**
PULL -> SAT	0.317	0.121	0.009	**
SAT -> REV	0.411	0.087	0.000	**
PUSH -> REV	0.225	0.087	0.010	**
PULL -> REV	0.505	0.101	0.000	**

Source: Primary Data (data processed), 2019.

Description:
Ns : not significant
** : significant

Total influence is formed from a combination of direct and indirect influences. The total effect test results presented in Table 8 can be seen that all influences are positive and significant.

CLOSING

Conclusion

Push and pull factors have a significant effect on the satisfaction of millennial tourists visiting Bali. Tourist satisfaction has a significant effect on revisit intention. The push factor does not have a significant effect on the revisit intention of millennial tourists to Bali even though it is mediated by satisfaction, while the pull factor has a significant effect on revisit intention.

Suggestion

Seeing the important role of social media in the journey of millennial tourists, it is suggested that the government through the Bali Provincial Tourism Office should collaborate with experts in the field of digital marketing to create an informative social media account that contains interesting content and is able to provide complete information related to all attractions tours in Bali to attract millennial tourists visiting Bali. Improvement of destination quality must be done so that it is not monotonous, because millennial tourists have the characteristics of exploring something new.

Acknowledgments

The author would like to thank Dr. Ir. I Gusti Ayu Oka Suryawardani, M.Mgt., Ph.D as the first supervisor as well as the Coordinator of the Tourism Study Program at Udayana University who, with full attention and patience, gave me encouragement, enthusiasm and guidance in completing this thesis. I also thank Ir. Anak Agung Putu Agung Suryawan Wiranatha, M.Sc., Ph.D as the second supervisor with full attention and patience has provided guidance and suggestions to me. I also thank Prof. Dr. Ir. Syamsul Alam Paturusi, MSP as an academic supervisor and thesis examiner for the opportunities and guidance provided during lectures to date. I also thank Dr. I Nyoman Sudiarta, SE., M.Par and Dr. I Ketut Surya Diarta, SP., MA as the examiners who provide many inputs, suggestions and corrections so that this thesis can be completed. Thank you also to all the lecturers in the Tourism Study Program at Udayana University who have provided a lot of knowledge, insight and guidance as well as administrative staff who have helped the writer while attending lectures. Thank you to my beloved family who never stopped encouraging me to complete my master's program.

REFERENCES

Vigolo, V., F. Simeoni., F. Cassia. And M.M. Ugolini. 2018. The Effect of Travel Motivation on Satisfaction : The Case of Older Tourist. *International Journal of Business and Social Science Volume 9*.

Huang,S., Y. Shen., C. Choi. 2015. The Effect of Motivation, Satisfaction and Perceived Value on Tourist Recommendation. *Travel and Tourism Research Association:* Advancing Tourism Research Globally

Gnanapala,W.K.A.C.,A.M.J.A.Dharmasiri and J.A.R.C. Sandaruwani. 2017. Travel Motives, Perception And Satisfaction Of Millennial Travellers: A Study In East Coast Of Sri Lanka. *Proceeding 7th International Borneo Business Conference.* Page 524-536. Malaysia : Universitas Malaysia Sabah.

Ghozali, I. 2014. *Structural Equation Modelling Metode Alternatif dengan Partial Least Square Aplikasi*. Cetakan ke empat. Semarang : Universitas Diponegoro

Wiranatha, A.S., I.G.A.O. Suryawardani, I K.G. Bendesa. 2018. Model of Foreign tourist's Loyalty in Cultural and Heritage Tourism. *Journal of Global Stochastics Analysis.*

Sultan, M.A., T. Haryono, B. Haryanto, A.L. Riani. 2012. Proses Pembentukan Perilaku Niat Wisatawan Berkunjung Kembali. *Jurnal Siasat Bisnis Vol 16*.

Dayaour, F., & Adongo, C.A. 2015. Why They Go There : International Tourists' Motivation and Revisit Intention to Northern Ghana. *American Journal of Tourism Management*, 4 (1) : pp 7-17.

Baniya, R., Ghimire, S., & Phuyal, S. 2017. Push and pull factors and their effect on international tourists' revisit intention to Nepal. The Gaze : *Journal of Tourism and Hospitality*, 8 : pp 20-39.

Khuong, M.N. & Ha H.t.t. 2014. The Influences of Push and Pull Factors on the International Leisure Tourist Return To Ho Chi Minh City, Vietnam – Mediation Analysis of Destination Satisfaction. *International Journal of Trade, Economies and Finance*, 5 (6) : pp 490-496.

The Economic Impact of Man-Made Tourism Development Towards Local Community in Kota Batu East Java (Case Study: *Pasar Parkiran* Jatim Park I)

Tomi Agfianto[1], A Faidlal Rahman[2]

[1]Tour and Travel of Sebelas Maret University
[2]Hospitality Management of Brawijaya University

Corresponding Author: tomi.agfianto@staff.uns.ac.id

ARTICLE INFO

Received
3 December 2019

Accepted
15 February 2020

Available online
31 March 2020

ABSTRACT

Recently, Tourism becomes a great demand by all people including the millennial group. It makes stakeholders of tourism industries should provide and accommodate the demand of the millennial. The millennial people are close to challenges, technologies, digitals, and something that has excitement. One of tourism concepts which is suitable and highly demand is man-made tourism such as theme park, amusement park, etc. This study aims to identify and analyze the tourism impact that emerges with the existence of man-made tourism activities, because those tourism activities are closely to capitalist monopoly and industrialization. The approach of this research was quantitative method by distributing questionnaires to the tourists who spent their expenditure and local host who received income from the tourism activities. This research was conducted at the *Pasar Parkiran* tourism destination in Kota Batu East Java which is managed by Jatim Park I. The results of this study explain that the value of Keynesian Income Multiplier (KIM) effect is 0.93. The result shows that tourism activities give positive impact to local host due to the value close to 1.00. The research explains that negative image of mass tourism activities that is monopolized by the company is not totally true, while tourism is managed by the company involving the community as the partner will have a positive impact on both sides.

Keywords: Mass Tourism, Man-made Tourism, Tourism Economic Impact, Batu City Tourism Development, Pasar Parkiran.

INTRODUCTION

Background

Tourism becomes a primary and leading sector in development the economy of the country. Since 2016, Tourism contributes to improve the economy by donating US$ 13.568 billion. Furthermore, in 2018, tourism has been able to generate a second largest foreign exchange income after Crude Palm Oil (CPO) (Kemenpar, 2019). Another

indicator of the successful growth of the tourism sector is based on data released by the Indonesian Ministry of Tourism that the increasing number of foreign tourists year by year. In 2018, there was a growth of 12.61% from 2017 which was 15,810,305 foreign tourists, although the number was not in accordance with the figures targeted by the ministry which were 17 million foreign tourists in 2018.

The continuity of Indonesia Tourism development has already positive impact on the tourism growth in East Java Province. This development proved by increasing the number of tourists, where East Java was visited by 66.314.044 tourists, consist of 690.509 foreign tourists and 65.623.535 domestic tourists in 2017. This number has a growth of around 11.62% compare to the previous years 2016 which amounted to 618,615 tourists. The development of tourism industry in East Java, both foreign and domestic tourists, within a certain period showed a positive increase. It means, East Java as a tourism destination in Indonesia is indeed quite potential and interesting to be visited by tourists. Therefore, this development can be used as an indicator that East Java tourism can compete with other tourism regions in Indonesia.

Geographically, Batu City is a part of Malang Raya Area which is consists of Malang City and Malang Regency. This small city is well-known as tourism destination with branding of Shining Batu Many tourists visit Batu City comes from various regions in Indonesia and countries all over the world. They come because Batu City has its own distinct characteristics and strengths that are always attractive to tourists. This is proven by the development of tourism and increasing the number of tourist visits to Batu from year to year besides being a strength in preserving the distinctiveness and diversity of tourist attractions that are different from other regions (product diversification) (Rahman, 2012)

The growth of tourist attraction in Batu City is currently classified as very massive, especially in the development of man-made tourist attractions. Based on data obtained from the Batu City Tourism Board, there are at least 49% of the tourist attractions in Batu City are man-made tourism attraction and the remaining 13% and 38% are cultural tourist attractions and natural tourist attractions. The man-made tourist attraction in Batu City is dominated by PT. Bunga Wangsa Sedjati which has Jatim Park Group tourism destination. The tourism destination has several tourist attractions including Jatim Park I, Jatim Park II, Jatim Park III, Batu Night Spectacular (BNS), Eco Green Park, *Museum Angkut*, Predator Fun Park and many more tourist attractions spread out in

East Java Province. (Disparta Kota Batu, 2019)

The impact of the growth is expected to be able to contribute to the improvement of the local economy, especially people who are around the location of tourism activities. In some places, investors are present to develop the tourism industry with a capitalist model and the public is not given access to be involved in it. This has an impact on people becoming increasingly poor, unemployed, and social inequality is higher (Karim, 2005). How much impact is received by the community around the tourist attraction of the *Pasar Parkiran* Jatim Park I with the existence of tourism activities and how the implementation on the field by local people is discussed in this article.

Research Objectives

The purpose of this study is to identify the impact received by the local community around the development of the tourism destination of the *Pasar Parkiran* Jatim Park I based on the approach of the tourist's expenditure and the local people income who are active in supporting tourism activities in the *Pasar Parkiran* Jatim Park I.

LITERATURE REVIEW

Tourism Industry

Tourism has commonly believed that it has contributed positively to economic growth as exports have strongly triggered economic expansion. The rapid development of tourism industry afford to drive the growth of local income and government revenue directly and indirectly (Oh, 2005). In last few years, this industry began to be focused by both regional and central governments. According to Okumus (2005) explains that the tourism industry is able to become one of the main sectors driving the local economic. This is able to help the Northern Cyprus economy by contributing to reduce the unemployment number by creating a total of 6,000 jobs. In addition, tourism contributed to a GDP of $ 93 million (3%). Although in further explained, that tourism is an industry that is susceptible to economic crisis in the country. The Indonesia economic crisis in 1998 affected the decrease of foreign tourists arrivals from 1997 in 12%.

According to Sunaryo (2013), historically there are two tourism development models that underlie current tourism development and management models. Growth oriented model which gives priority to mass tourism is an early development model and familiar in the

1980s. This model focuses on the high and massive level of the tourists number. After it was realized that the paradigm of the model did not have a significant impact on society, a new concept or paradigm emerged as one of the options and balances of mass tourism, namely the concept of sustainable tourism development which began to be implemented since the 1990s.

In the tourism industry, there are three main stakeholders involved in managing and providing tourism activities. The stakeholders are the government, private companies, and local communities located around the tourist destination (sutama, 2013). The private sector is the main stakeholder in the management of mass tourism. Jatimpark, Batu Night Spectacular, and *museum angkut* are mass tourism destinations managed by the private sector, where the number of tourists and tourist expenditure is the parameter of the success goals management. Tourism destinations that are provided and managed by private companies are called Investor Based Management.

The concept of Investor Based Management has the opportunity for closed the access of local host to get the impact of tourism activities. This is caused by the divisions determined by the company in terms of receiving tourist expenditure. Opportunities for sharing the impact of tourism activities should be felt by the community around the local tourist attraction. Providing access to the community is not only intended to have an economic impact on the local community, it is also expected to avoid tourism conflicts that occur between the company and local communities.

Economic Impact

Cohen (1984) explained that there are eight categories regarding the impact of tourism on the local community socio-economic, namely: the impact on foreign exchange earnings; impact on community income; impact on employment opportunities; impact on prices; impact on benefit distribution; impact on ownership and control; impacts on development in general; impact on government revenue. In line with Cohen, Frechtling (1987) explains that the economic impact of the tourism development model is a contribution of a tourism development model in a tourist destination to the economy of a region. These impacts can be in the form of: 1) revenue from sales of tourism products (entrance tickets, accommodation, restaurants, game / attraction rides, transportation, and retail); 2) community income (souvenir / souvenir sales and services); 3) employment opportunities; and 4) government revenue

from taxes and user charges. Tourism becomes an important factor is caused can be a driving factor for the development of several economic sectors. With the increase of the tourism was followed by related industries that are close including handicrafts, souvenir goods and the agricultural sector where tourists need food for consumption.

According to MEA (2001) there are three groups of economic impacts, namely direct effects, indirect effects, and induced effects. In practice, indirect effects and induction effects are sometimes referred to as secondary effects which follow the direct effect as a primary effect (Primary Effect), it call multiplier effect.

The multiplier effect has several principles as explained by Yoeti (2008): the tourist expenditure never stops circulating in economic activities where the money is spent and rotate in that area. In the principle, the faster the rotation of the money moves into the others, the greater the influence of the money in the economy at the location and the greater the value of the multiplier coefficient. When the money disappears from circulation stops at one individual and has not moved into the others, the money has no effect on the local economy.

Local Community

Local Community is a group of individuals to form the personalities of the citizens of human groups or tribes who are different from one another. In a local community that is also the relevant citizens to develop and preserve cultures that are in certain strata of society which must have different characteristics. It can also be regarded as one of the media or educational institutions, a diverse field of human life both ethnicity, religion, work activities, education level, economic level, and social culture. In the context of community organization is a life together which is at the micro level of the government. In this sense is an institution or an embodiment of the subject of managers who receive the trust of community its self.

Betrand in Syani (1995) explains that community is a group of people with the same identification, organized in such a way as to carry out everything needed for a harmonious shared life. In another sense the community is a group of individuals who reside in a certain area and can interact with other individuals over a long period of time. Based on the explanation described, it can be concluded that the community is a group of people who live in a certain place for quite a long period of time and interact with each other with the aim of creating harmony in life.

One form of community is a group of people who are limited by certain aspects, such as territories, nations, and groups. According to Soekarto in Syani (1995) the characteristics of a community in a form of shared life include the following: a) Humans who live together. In social science there are no absolute measurements or exact numbers to determine how many people there must be and are just called society. But theoretically, the minimum number is more than one or at least two people living together; b) Mixed for quite a long time. A collection of humans is not the same as a collection of inanimate objects such as chairs, tables, and so on. The basic difference here is the interaction with one another. The interaction can talk, feel and understand, they also have the desire to convey their impressions or feelings; c) They realize that they are part of a group or a unit; and d) They are a system of living together. The system of living together gives rise to culture, because each group member feels himself bound to one another.

In this study, the meaning of local community is a community that has lived in Kota Batu for a long time, especially the surrounding *Pasar Parkiran* Jatim Park I. The community as an object of research becomes very important in the classification and determination of research criteria. As one of the efforts to impose restrictions on local communities in this location, it is determined that local communities refer to *Badan Pusat Statistik* (BPS) that is, all people who have lived in geographical areas for 6 months or more and or who have been domiciled for less than 6 months but aim to settled and supported by identity card (KTP) which prove that they live in the area around tourism.

METHODOLOGY

This research uses a quantitative method approach by collecting and processing data. The data in this study were collected with the original conditions with the instrument in this study was using a questionnaire. It is a technique or way of collecting data indirectly (Arikunto, 2006). There are three kinds of respondents in this article, namely: tourists by identifying their expenditures, business owners who make business in the *Pasar Parkiran* Jatim Park I, and labours who work in tourism destination. Where the second and third respondents are identified based on their income and expenditure related to their business and daily expenses.

The probability sampling method is used in this article with implementated a random sampling techniques without ignoring certain criteria to fit the research

objectives, so that it can answer the research problem. Sample criteria in the form of tourists with a minimum age is 17 years old with the reason that tourists who have that age have been able to determine the decision to spend the money that they have. The sample size is determined by using the Slovin formula with the margin of error 10 percent.

Pasar Parkiran Jatim Park I in Batu City is the research location, because it (Jatim Park I) is a pioneer and the most famous man-made tourist attraction in Batu City with the highest number of tourists 413,497 tourists in 2016 (BPS, 2017). This research was conducted in April 2018. Primary data used by giving questionnaires to tourists who come and expend their money in tourism destination, the owner of SMEs at the *Pasar Parkiran* Jatim Park I to collect information of their income and expenses. Secondary data was used to support in compiling this research related to actual and factual condition of tourism in Batu City.

Number of samples in this study were 110 respondents with the detail 50 respondents of tourists, 30 respondents of SMEs owner, 30 respondents of labour in the destination. Determination of the samples refers to Sekaran (2006) where generally, to obtain good results in the research, the number of samples used are in the range of 30-500 respondents. In this study, the Keynesian Multiplier Effect analysis technique is used to measure the direct impacts, indirect impacts and induced impacts that occur in activities at *Pasar Parkiran* Jatim Park I. These economic impacts can be measured using the multiplier effect by the flow of money that occurs. In measuring impacts, there are two types of multiplier, namely: a). Keynesian Local Income Multiplier is a value that measures how much tourist expenditures have an impact on increasing local community's income; and the others b) Ratio Income Multiplier, which is a value that measures how much the direct impact felt by tourist expenditures have implications for the overall local economy income. This multiplier measures the indirect and induced impacts. The formula that can be used in measuring the multiplier effect is as follows:

$$\text{Keynesian Income Multiplier} = \frac{D+N+U}{E} \quad (1)$$

$$\text{Ratio Income Multiplier, Type I} = \frac{D+N}{D} \quad (2)$$

$$\text{Ratio Income Multiplier, Type II} = \frac{D+N+U}{D} \quad (3)$$

Where:
E: tourist expenditure (Rupiah)
D: community income obtained directly from E.
N: community income obtained indirectly from E
U: community income obtained induced from E

RESULTS AND DISCUSSION

Characteristics of respondents

Gender and Age

The result of the research shows that gender of tourists is dominated by female (58%) than followed by male with the total 42%. Apart from gender, tourists are dominated by productive tourists, with an age range of 17-30 years at 84%, followed by 31-40 years are 12% and the remaining 4% is elderly at more than 40 years.

Education

The education level of tourists who become as respondents in this research are dominated by bachelors degree with a proportion of 48%, tourists with a senior high school level are 38%. Moreover, the tourists with elementary school are 2%, 4% are junior high school and 8% are tourists with a diploma education level.

Occupation and Income

Based on the type of occupation and income indicators, the largest proportion of tourists who come to the *Pasar Parkiran* Jatim Park I are students with a proportion of 44% and followed by tourists with occupation status were entrepreneurs (36%). A number of 3% proportion are tourists with civil servants and housewives and State-owned enterprises employee have a proportion of 8%.

In terms of income received by respondents dominated by young age with work status students, the income is dominated by tourists with income less than 500.000 (36%) and followed by the second proportion of 26%, namely tourists with income 1.500.001- 2.500.000. The lowest proportion is tourists with income of 2.500.001-3.500.000 by 6%, 12% for tourists with more than 3.500.000 income and 20% for tourists with income of 500.001-1.500.000.

Table 1.1 The Proportion of Tourist Expenditure at *Pasar Parkiran* Jatim Park I

No		Description	Average expenditure (Rp)	Proportion (%)
A		**Out of Location Expenditure**	**53.940**	**33,34**
	1	Transportation (Rp/pax/day)	21.300	13,17
	2	Meals before arrived (Rp/pax/day)	32.640	20,18
B		**In the Location Expenditure**	**107.830**	**66,66**
	1	Meals (Rp/pax/day)	31.230	19,31
	2	Souvenirs and Gifts (Rp/pax/day)	15.700	9,71
	3	Entrance ticket (Rp/pax/day)	16.580	10,25
	4	Games entrance fee (Rp/pax/day)	24.430	15,10
	5	Toilet fee (Rp/pax/day)	1.940	1,20
	6	Parking fee (Rp/pax/day)	5.580	3,45
	7	Others expenditure (Rp/pax/day)	12.370	7,65
C		**Total Tourist Expenditure (Rp/pax/day) (C=A+B)**	**161.770**	**100**
D		**Total Out of Location Expenditure (D=A*monthly average of tourists) (Rp/month)**	**499.646.220**	
E		**Total In the Location Expenditure (E=B* monthly average of tourists) (Rp/month)**	**998.829.290**	
F		**Total tourist expenditure in one month (F=D+E) (Rp/month)**	**1.498.475.510**	

Source: Data processed, 2018

Secondary data got from the management of tourist attraction, 2018

Notes: The average of tourists (Jan – Dec 2017) is 9.263 tourists

Based on Table 1.1. it can be seen that the proportion of transportation costs expended by tourists when visiting the location is 13.17 percent of the total costs by each tourist, while the meals costs expended before arriving is 20.18 percent or an average of Rp. 32.640,- so that the total expenditure of tourists before arriving at the location or called out-of-location expenditure is 33.34 percent or an average of Rp. 53.940,-. In this case, out-of-location expenditure occurs caused by there are a lot of culinary destination in the night for tourists' dinner, then the tourists who will visit *Pasar Parkiran* are usually have dinner outside location. Furthermore, the average expenditure of tourists who carry out tourism activities in the *Pasar Parkiran* is 66.66 percent of the total expenditure spent. The biggest proportion of expenditure made by tourists is on meals expenditure that is equal to 19.31 percent while the next is on the games offered by tourist destinations that is equal to 15.10 percent.

Direct Effect

Owners Personality

Based on the study, the gender of business owners in the *Pasar Parkiran* have the same proportion of both female and male in the amount of 53.33% and 46.67% or a difference of 6.66% with an age distribution are more than 31 years (80%) with details 31-40 years is 40% and ≥ 40 years is 40%. The marital status of business owners in location are dominated by married status of 73.33% and 26.67% are unmarried entrepreneurs.

Education

In education, business owners in the location are dominated by entrepreneurs with senior high school education level (56.67%) and followed by business owners with junior high school education level of 16.67%. Business owners who have a college education level are only 13.33% with the detail are a diploma of 3.33% and a bachelor of 10%.

Business Capital and Length of Business

Business capital should be prepared by the owners. The average of owners business capital in the *Pasar Parkiran* Jatim Park I is Rp. 5,020,400, and the business has been running for an average of 27 months or more than 2 years.

The direct impact can be seen from the tourist's expenditure occurs in the destination which is directly received by the business units in the location, so that it can be seen how much the direct impact is felt. The direct economic impact that occurs in the location can be seen in proportion to the net income of the business owner, which in this case varies

according to the type of business being run. Data on the percentage of business unit owner's income can be seen in Table 1.2.

Table 1.2 The Proportion of SME's Owners income at *Pasar Parkiran* Jatim Park I

No.	Type of Business	Owners	
		Σ (Rp)	**%**
1	Food and Beverage Outlets	2.500.000	48,66
2	Gifts and Souvenirs Outlets	2.120.000	41,83
3	Games managed by Community	-	-
4	Toilet Service	1.500.000	45,94
	Average	**2.040.000**	**45,48**

Source: Data processed, 2018

The net income felt by each outlet varies according to the type of the business. Based on Table 1.2 it can be seen that the meals outlet has the largest proportion of 48.66 percent with an average of Rp 2,500,000, while the souvenirs and gifts shop have a profit proportion of 41.83 percent of the average monthly income received. There is no income received by the community related to game facilities. This is caused by the game being provided and managed directly the Management. The direct economic impact can be seen from the net income of outlet owners. The calculation of the direct impact felt by the business unit can be seen in Table 1.3.

Table 1.3 The Direct Effect at *Pasar Parkiran* Jatim Park I

Type of Business	SME's Owners Sample	Total Unit of SME's	Average Income (Rp/Month)	Direct Effect (Rp/Month)
	(a)	(b)	(c)	(d=b*c)
Food and Beverage Outlets	18	52	2.500.000	130.000.000
Gifts and Souvenirs Outlets	11	33	2.120.000	69.960.000
Games managed by Community	0	0	0	0
Toilet Service	1	3	1.500.000	4.500.000
Total	**30**	**88**	**4.620.000**	**204.460.000**

Source: Primary and secondary data processed, 2018

Based on Table 1.3 the amount of direct economic impact received by the toilets have the smallest amount of Rp 4,500,000, - with an average per month for it receiving Rp 1,500,000. The total direct impact received by all outlets in the *Pasar Parkiran* is an average of Rp. 204,460,000 per month, with an average of each outlet being Rp. 1,540,000.

The direct economic impact felt by the outlet owner is the net income received when carrying out its business activities in the *Pasar Parkiran* Jatim Park I. Meals Outlet has the largest amount of income, which is an average of Rp 130,000,000, - per month. This is

influenced by in addition to the average amount per month for each meal outlets, in terms of the number of types of meals outlet, there are also a lot of 52 units. So that the amount received in each month by this business unit has the highest amount. Toilet has a small number of units. There are 3 location of toilet in the *Pasar Parkiran* considering the area of the destination is not too large and is part of Jatim Park I, so there are only 3 toilet units. In this case, the *Pasar Parkiran* is also able to open up opportunities for local workers to work in these locations. There are 163 workers who work in the *Pasar Parkiran* Tourism Destinations which are divided into several sectors or job positions. Before the formation of the *Pasar Parkiran*, the community carried out the business of selling food and drinks on the roadside as street vendors. With the *Pasar Parkiran* become a tourist destination, the community has location to do business without fear to the authorities in this case the local governance because of illegal business.

Indirect Effect

Expenditures made by outlets in the surrounding of the location such as the purchase of raw materials, maintenance of equipment, payroll are included in the indirect economic impacts that occur at the tourism destination. The calculations regarding the expenditure of business units inside and outside the location can be seen based on Table 1.4.

Table 1.4 Total Expenditure of SME's Inside and Outside Location

Description	Type of Business			
	Food and Beverage Outlets	Gifts and Souvenirs Outlets	Games	Toilet Service
Inside Location				
Material Cost	1.080.556	1.081.818	-	200.000
Maintenance Cost	130.833	125.455	-	200.000
Rent Cost	523.778	532.364	-	600.000
Total Expenditure (Rp/Month) (a)	1.735.167	1.739.636	-	1.000.000
Total SME's (b)	52	33	-	3
Total Expenditure inside location (Rp/Month) (c=a*b)	**90.228.667**	**57.408.000**	**-**	**3.000.000**
Outside Location				
Local Transports	199.412	173.182	-	100.000
Tax and Retribution	13.529	20.000	-	-
Operational Cost	54.000	56.455	-	45.000
Total Expenditure (Rp/Month) (d)	266.941	249.636	-	145.000
Total Expenditure outside location (Rp/Month) (e=d*b)	**13.880.941**	**8.238.000**	**-**	**435.000**

Source: Data processed, 2018

Based on Table 1.4 the costs by outlets within the location will indirectly have an impact on the local people who work at there. These expenditures include the purchase of raw material inputs, equipment maintenance, and rental costs. In this case, the expenditures made by the

meals outlet and souvenir outlets do not differ too much, namely the average per unit of business is Rp 1,735,167 and Rp 1,739,636, -. But if seen from the total expenditure spent by each group of business units, the meals outlets group had the largest total expenditure of Rp. 90,228,667 per month. It dominates expenditure at the tourist location due to several factors that influence. These factors include the number of the outlets in the tourist location which has the highest number compared to other business units in the form of souvenir, as well as business units providing toilet facilities in tourist location. In addition, to the large number of units, the purchase of raw materials for meals outlets has a greater amount compared to the provision of toilets in which the purchase or expenditure of raw materials is relatively low. Furthermore, the indirect economic impacts felt by labours in the form of income obtained can be seen in Table 1.5. Based on Table 1.5 there is a difference in the proportion of salary based on the type of work but the average income is taken. The greatest indirect economic impact is felt by the meals outlets which is Rp. 190,588,667, - because the number of labours in the business unit has the highest number.

Table 1.5 The Indirect Effect at *Pasar Parkiran* Jatim Park I

Type of Business	**Average of Labour (pax)**	**Σ SME's (unit)**	**Σ Labour (pax)**	**Labour Income (Rp/month)**	**Total Labour Income (Rp/month)**	**Total Expenditure inside location (Rp/Month)**	**Total Indirect Effect (Rp/Month)**
	(a)	(b)	(c=a*b)	(d)	(e=c*d)	(f)	(g=e+f)
Food and Beverage	1	52	52	1.930.000	100.360.000	90.228.667	190.588.667
Gifts and Souvenirs	1	33	33	1.570.000	51.810.000	57.408.000	109.218.000
Games	0	0	0	0	0	0	0
Toilet Service	1	3	3	1.250.000	3.750.000	3.000.000	6.750.000
Management							
Maintenance	14	1	14	2.600.000	36.400.000	-	36.400.000
Cleaning	10	1	10	2.300.000	23.000.000	-	23.000.000
Administration	7	1	7	5.000.000	35.000.000	-	35.000.000
Security	7	1	7	2.050.000	14.350.000	-	14.350.000
Ticketing	8	1	8	2.000.000	16.000.000	-	16.000.000
Games Guard	10	1	10	2.000.000	20.000.000	-	20.000.000
Outbound	10	1	10	2.400.000	24.000.000	-	24.000.000
Parking	9	1	9	1.600.000	14.400.000	-	14.400.000
Total	78	96	163	24.700.000	339.070.000	150.636.667	489.706.667

Source: Data processed, 2018

In addition to payment of labour's salary, the direct impact is also calculated from the expenditure of outlets located in tourist destination as shown in Table 1.4. Based on the two components, labour's salary and outlets expenditures in tourist sites, a total indirect economic impact

which occurs in these tourist destinations. In this case the indirect economic impact that occurred on the *Pasar Parkiran* is Rp 489,706,667 per month.

Induce Effect

This location also has a induce economic impact that occurs due to expenditure made by labour in the area of tourism. The expenditure causes a velocity of money received by them and spent to finance his daily life. The research makes an interview and contributes a questionaire to the labour with the detail below.

Labour Personality

The proportion of labour respondents is not much different between male and female, the difference is only 6.66%, with the details men (53.33%) and women (46.67%). The range of age in the location dominated by 21-30 years at 56.67%. A proportion of 20% is found in labours with age less than 20 years and more than 40 years are equal. There are 3.33% of labour respondents with ages 31-40 years. This proportion is the smallest proportion in the age of the labours.

Education and Geographic Background

The education level of the location in the *Pasar Parkiran* is dominated by senior high school level with a proportion of 70% and followed by a bachelor degree level of 20%. The level of junior high school is the smallest proportion of 3.33% and the elementary school level of 6.67%. With a proportion of the labour is 80% dominated by local and native community of the area while the remaining 20% are from outside the location of tourism destinations. The average length of work labours in the *Pasar Parkiran* are approximately 38 months or 3 years.

Expenditures that cause further economic impacts such as daily consumption costs, daily necessities, local transportation costs, and the cost of school children when they are married. Conversely, expenditures made outside tourist sites do not have an induced economic impact because the money goes out of the location area. Expenditures outside the location are divided into two, namely the cost of electricity payments and other costs. The proportion of labour expenditure can be seen in Table 1.6.

Table 1.6 The Proportion of Labour Expenditure

Labour	Surrounding Expenditure					Outside Expenditure		
	Meals Cost (%)	Daily Cost (%)	Transpor-tation Cost (%)	School fees (%)	Total (%)	Energy Cost (%)	Other Cost (%)	Total (%)
	(a)	(b)	(c)	(d)	(e=a+b+c+d)	(f)	(g)	(h=f+g)
Meals Shop	45,84	26,26	10,24	6,45	88,79	3,43	7,79	11,21
Souvenirs Shop	53,93	13,26	14,15	5,84	87,18	6,72	6,10	12,82
Games Shop	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Toilet Service	22,12	17,70	26,55	7,08	73,45	8,85	17,70	26,55
Management								
Maintenance	41,67	25,00	8,33	0,00	75,00	4,17	20,83	25,00
Cleaning	69,69	1,39	20,91	1,05	93,03	3,48	3,48	6,97
Administration	35,29	5,88	47,06	0,00	88,24	7,06	4,71	11,76
Security	58,82	2,94	29,41	0,00	91,18	2,94	5,88	8,82
Ticketing	24,00	20,00	8,00	0,00	52,00	12,00	36,00	48,00
Games Guard	18,52	14,81	14,81	0,00	48,15	14,81	37,04	51,85
Outbound	65,36	1,96	19,61	0,00	86,93	3,27	9,80	13,07
Parking	40,73	29,79	3,90	19,60	94,03	5,97	0,00	5,97
Average	**39,66**	**20,59**	**17,91**	**3,33**	**81,50**	**6,06**	**12,44**	**18,50**

Source: Data processed, 2018

In addition to consumption costs, there are still daily expenses, local transportation costs, as well as children's school fees incurred by workers who work in the *Pasar Parkiran*. The total expenditure done by workers around the tourist destination is 81.50 percent, meaning that the total labour income in the *Pasar Parkiran* is almost entirely spent inside the location or around the tourist destination, while the expenditure done outside the location is 18.50 percent.

The induced impact of the existence of the *Pasar Parkiran* tourist location can be seen from the amount of labour expenditure carried out in the tourist location. Data on the continuing impacts can be seen in Table 1.7.

Table 1.7 The Induce Effect at *Pasar Parkiran* Jatim Park I

Labour	Total of Labour (Pax)	Total Labour Expenditure per month (Rp)	The Proportion of Labour Expenditure in Location (%)	Induce Impact (Rp/Month)
	(a)	(b)	(c)	(d=a*b*c)
Meals Outlet	52	2.247.000	88,79	103.740.000
Souvenirs Shop	33	1.131.000	87,18	32.538.000
Games	0	0	0	0
Toilet	3	1.130.000	73,45	2.490.000
Management				
Maintenance	14	2.400.000	75,00	25.200.000
Cleaning	10	1.435.000	93,03	13.350.000
Administration	7	1.425.000	88,24	8.801.000
Security	7	1.700.000	91,18	10.850.000
Ticketing	8	1.250.000	52,00	5.200.000
Games Guard	10	1.350.000	48,15	6.500.000
Outbound	10	1.530.000	86,93	13.300.000
Parking	9	1.561.000	94,03	13.210.000
Total	**163**	**17.159.000**	**81,50**	**237.465.000**

Source: Data processed, 2018

Based on Table 1.7 it can be seen that the total average expenditure of respondents in the *Pasar Parkiran* is Rp. 17,159,000, - of this amount if the average proportion of labour expenditure carried out in tourist sites is 81.50 percent then it can be seen that the induced economic impact occurring in the *Pasar Parkiran* is IDR 237,465,000. The induced impact of 81.50 percent carried out by labour in the *Pasar Parkiran* is expenditure at tourist destinations which includes expenditures for consumption costs both for personal and family needs, daily necessities such as bathing, cigarettes, local transportation costs for purchases gasoline as transportation fuel to the workplace and the cost of school children for workers who are married and have children who have gone to school.

Based on Table 1.7 it can be seen that the game staff has the smallest proportion of expenditure which is 48.15 percent compared to the proportion of other labour's expenditures. This is due to the fact that most of the labour who work as game staff are young and unmarried staff.

Multiplier Effects

The value of the multiplier effect is an instrument to see how much tourism activities in the location has an economic impact on the community, especially in terms of income. (1) Keynesian Multiplier Effect, which is a value that shows how much tourists expenditure affects the increase in local community income; (2) Ratio Income Multiplier, which is a value that shows how much the direct impact that is felt from tourist's expenditure has an impact on the local economy. In this case, it measures two impacts, those are indirect impacts and induced impacts that occur.

Table 1.8 Multiplier Effect Value of *Pasar Parkiran* Jatim Park I

Multiplier	Value
Keynesian Income Multiplier	0,93
Ratio Income Multiplier Type I	3,40
Ratio Income Multiplier Type II	4,56

Source: Data Processed, 2018

Regarding on Table 1.8 about the Keynesian Income Multiplier value in the *Pasar Parkiran* of 0.93, it means that each increase in tourist expenditure by Rp 1,000 will have an impact in the form of an increase in the local economy of Rp 930. The value of the Ratio Income Multiplier Type I is 3.40, so each increase of Rp. 1,000 on the receipt of business units results in an increase of Rp. 3,400 to the income of the business owner and labor. The value of the Income Multiplier type II ratio is 4.56, indicating that each increase of Rp 1,000, - on business unit revenue will increase Rp 4,560, - on business

owner income, labor income, and labor consumption expenditure in the local economy that will revolve to the local community. The Keynesian Income Multiplier value in the *Pasar Parkiran* has approached number 1 which is 0.93, the value of the Ratio Income Multiplier Type I and the Ratio Income Multiplier Type II of 3.40 and 4.56. It means that *Pasar Parkiran* Jatim Park I, based on the results of multiplier effect analysis, has been able to have a good impact on the local community. It can be seen from the numbers that have approached 1.00 figures on the multiplier effect that occurs. The fundamental thing that has made tourism activities have an impact on society is the open space for community to do business at the destination. The community is given the chance to create a business outlet for food stalls, drinks, souvenirs and gift stalls. Apart from being given the space to set up business units at tourist sites, the absence of competition between the community and the management is the reason why the community can feel the impact of tourism more. The management of Jatim Park I, which is engaged in providing tourist destinations in the form of games and various tourists attract, while the local community does the business of setting up typical culinary stalls of Batu City.

Apart from good management according to professional company standards, supporting factors in the form of tourism facilities also play a role in both of these tourism industries. Based on the review of the location, *Pasar Parkiran* is a tourist destination in the center of the city with adequate facilities. Supporting facilities and infrastructure in the form of central city accommodation facilities are easy to access. In addition to accommodation facilities, the distance between location and public transport facilities is also easier to reach.

Furthermore, viewed from the Minister of Tourism RI Regulation No. 28 of 2015 on Business Standard of Food Sales Center, there are 3 main aspects in the standardization namely Products, Services, and Management. As one of the leading tourism destinations in Batu City, *Pasar Parkiran* has paid attention to the government standards. All facilities and infrastructure for supporting local host businesses have been provided by the tourism destination, in this case Jatim Park I, so that it is appropriate and can be used by tourists who enjoy the culinary. Services are important in tourism activities in the *Pasar Parkiran*, so that human resources in the *Pasar Parkiran* more often get training on the professionalism of working the tourism business.

Related to Government Regulation No. 78 of 2015 on Salary and reinforced by East Java Governor Regulation no. 75 of 2017 on Regional Minimum Salary in East Java at 2018, where private companies that have employees are required to provide decent work salary in accordance with those government standards. The minimum salary set by the East Java provincial government for Batu City in 2018 is Rp 2,383,167.00, so that in this case the salary of labour in the *Pasar Parkiran* have approached the figure specified in article 3 paragraph 2 of the Governor's Regulation. Based on Article 3 paragraph 1 of PP No. 78 of 2015 concerning Wage Policy is expected to be one of the efforts to improve decent livelihoods for workers / laborers, one of which is the fulfillment of income in accordance with existing provisions. By providing workers' wages in accordance with established standards, it can increase the income of the community, especially those working in the *Pasar Parkiran* tourism destination, so that it contributes to increasing the existing indirect economic impacts.

CONCLUSIONS AND SUGGETIONS

Man-made tourism activities, namely *Pasar Parkiran* Jatim Park I, have given an impact on local communities, especially those get involved in the location. These impacts have been studied based on Keynesian Income Multiplier Effect with focus in the direct impacts received from tourist expenditures, the indirect impacts originating from business owner expenditures, as well as the induced impacts coming from local labour's salary in the tourism destination. Besides the economic impact, man-made tourism activities have been able to create and provide a job, especially for local communities who live around tourism destinations. Suggestions can be given to tourism destinations are to pay more attention to the local community by involving business activities so that the impact received by the community can be wider.

Acknowledgement

We would like to extend our highest thanks to PT. Jatim Park Group for giving an opportunity to hold the observation and interview to the respondents of the research. And also thanks to Professor Made Antara, MS and Dr. I Wayan Suardana., S.ST.Par., M.Par as the guidance in our research project. Last but not least, we would like to thank to all the respondents that already fulfill the questionaire of the research.

REFERENCES

Arikunto, S. 2006. *Research Procedure: A Practical Approach*. Jakarta: Rineka Cipta.

Batu Statistics Office. 2017. *Batu City in Figures 2016*. Batu: BPS Kota Batu.

Batu Tourism Office. 2019. *Market Analyze and Tourism Marketing Strategy of Batu City.* Batu: Disparta Kota Batu.

Cohen, E. 1974. "Who is a tourist? A conceptual clarification". *Sociological Review.* 22, pp. 527-555.

Frechtling, D. 1987. Assessing the Impacts of Travel and Tourism - Introduction to Travel Impact Estimation in Travel. *Tourism and Hospitality Research*. New York: John Wiley and Sons Inc.

Karim, A. 2005. *Tourism Sector Capitalization and Marginalization of Local Communities: Senggigi Village, West Lombok Regency, West Nusa Tenggara. Gadjah Mada University, Thesis in Sociology Study Program Concentration in Development Studies in the Social Sciences*. Yogyakarta: (not published).

MEA, 2001. Planning for Marine Ecotourism in the EU Atlantic Area, Good Practice Guide. *Marine Ecotourism for Atlantic Area (META)*. Bristol: University of the West of England.

Oh, Chi-ok. 2005. The contribution of Tourism Development to economic growth in the Korean Economy. *Tourism Management*. Vol. 26 pp. 39-44.

Okumus, Fevzi, et al. 2005. The impact of Turkey's economic crisis of February 2001 on the tourism industry in Northern Cyprus. *Tourism Management*. Vol. 26 pp 95-104

Rahman, A Faidlal. 2012. Analysis of Potentials and Opportunities for Agro Tourism Development in Batu City. *Paper presented at the Workshop of Leaders and Members of the Batu City DPRD on Tourism*. 30 January 2012 at Santika Hotel, Surabaya

Sekaran, U. 2006. *Research Methodology for Business*. Jakarta: Salemba Empat.

Sunaryo, B. 2013. *Tourism Destination Development Policies, Concepts and Applications in Indonesia*. Yogyakarta: Gava Media.

Sutama, I K. 2013. Spiritual Tourism in Bali from Perspective Tourism Stakeholders. *Journal of Hospitality and Tourism*. Vol. 3. No. 2. PP. 1

Syani, A. 1995. Sociology and Community Change. *Pustaka Jaya*. Lampung University.

Tourism Ministry. 2019. Press Release: Tourism Minister Target Tourism Foreign Exchange 17.6 billion US dollars. http://www.kemenpar.go.id/post/siaran-pers-menpar-targetkan-pisata-hasil-devisa-176-miliar-dolar-as. Accessed at 18 August 2019.

Yoeti, O A. 2008. *Tourism Economics: Introduction, Information and Implementation*. Jakarta: Kompas Publisher.

Sport Tourism Event of *Tour De Singkarak* to Support Destination Management in West Sumatera, Indonesia

Bet El Silisna[1] and Retnaningtyas Susanti[2]

[1]Tourism Dept. Manado State Polytechnic, Indonesia
[2]Faculty of Tourism and Hospitality, Padang State University, Indonesia

Corresponding Author: betel.lagarense@gmail.com

ARTICLE INFO

Received
3 December 2019

Accepted
15 February 2020

Available online
31 March 2020

ABSTRACT

This study aims to analyze the sport tourism event of Tour de Singkarak (TdS) related to tourist destination management in West Sumatera, Indonesia. The TdS is an international road bicycle race held annually for ten-year period as data presented from 2009 to 2018. Data were collected for this study through in-depth interviews with informants and analyzed by a descriptive qualitative technique. The results showed that the TdS events were succesfully and consistently held annually for ten-year period of 2009-2018 in West Sumatera and has significantly contributed to the regionas tourism destination. This was due to a strong commitment and serious action among central government and local government at province and municipality levels for the sport tourism development at the tourism destination in West Sumatera. The commitment could be seen in the serious, strong commitment and coordination between the Ministry of Tourism and the National Road Development Agency at a central government and Heads of Local Departments of Tourism, of Public Works and of Transportation at province and regency/municipality level. The commitment could be seen from the sport tourism management such as the provision of shared budget, event coordination, and destination and infrastructure development and promotion. This has especially raised an integrated development and improvement of infrastructures, i.e. roads, transportation mode, and accomodation facilities with increasing quantity and quality. It is a fact that TdS could be held annually for ten-year period (2009-2018) along with proper and good destination management for sport tourism in West Sumatera Province

Keywords: Tour de Singkarak, event, sport tourism, destination management.

INTRODUCTION

Sport Tourism

Sports tourism is defined as short-term activities related to tourism, economic impacts, spending on facilities and infrastructure preparation, as well as income from visitors and exposure to mass media (Getz, 2007: 15). Getz's definition above shows that event including sport tourism event influences infrastructure, tourism, and the economy of the host region. Susanti *et al* (2017) explains that sport events can be categorized according to its scales: big, medium, and small in which big event is a match participated by countries all over the world. Medium event is participated by countries in a certain region, while small event is participated by regions in a country. Indonesia has some international scale sport events and was a host for some regional and international events. Event implementation in a short time remains influential on the host in the long run. The event organiser need to develop a new method for regional development, especially in terms of infrastructure and image. The impact of event on infrastructure brings a positive image for the host. The development of infrastructure is in line with the development of the image (Smith, 2005). Infrastructure development that can be utilized by sport tourists and visitors give a positive image for the host. A good image of infrastructure can be one of the tourist attractions (Brown, Chalip, Jago, & Mules, 2004; Kim & Chalip, 2004). Ritchie and Smith (1991) state that organizing sports tourism increases awareness of destinations.

Baade and Matheson (2003) in their research on the 1984 Los Angeles Olympics found that the event succeeded in opening and increasing employment, as well as improving the quality of infrastructure. Large inventions induce the creation of industries that absorb labor, one of which is the accommodation industry. Sport tourism of World Cup Japan and South Korea in 2002 has increased the number of tourists from various countries reached 46,000 inhabitants. The large number of tourists requires accommodation as their temporary shelter, therefore the accommodation infrastructure needs to be developed, so that the needs of tourists are met. The contribution of sports tourism has increased in the quantity and quality of large infrastructure. Quality road is one form of contribution from sports tourism. The quality of the road has an effect on increasing people's travel for trips, both using public and private modes of transportation. People attending the sport tourism events tend to choose to use

private modes of transportation if the road to be passed to get to the tourist destination has good quality. Another thing that affects travel is the number and quality of modes of public transportation. If there are few modes of public transportation and conditions are not good, then tourists will prefer to travel using private vehicles. Previous research (Susanti et al, 2017) stated that Tour de Singkarak (TdS) is one of sport tourisms held by West Sumatera Government since 2009 and cycling race was chosen as an effort to improve tourist attraction in West Sumatera because of the history of this sport itself. Thus, sustainability of sports tourism is interesting to study, especially for analyzing the destination management strategy with roles of stakeholder collaboration and adequate infrastructures for the development of sustainable tourism in the international road bicycle race of TdS for ten-year period (2009-2018) in West Sumatera, Indonesia.

Desination Management

Destination Management and Marketing Organization (DMMOs) have recently became a mainstream factor in identifying successful development of a destination and its perspectives for better position in highly competitive tourism markets. They are not only representing a specific destination but are also striving to community development that bring long-term benefits such as attracting more visitors, increasing the economic gains, facilitating future marketing and product development decisions, and generally contributing to regional development through improving community relations and partnership (Timareva *et al*, 2015). Willingness to host sport tourism events at the destination requires large capital, especially for infrastructure, operational costs, and management of activities. The implementation of sports events is one of the efforts to create investment in infrastructure in general that will lead to economic growth.

Sports infrastructure includes the stadium or venue for the race as the main part and the road, transportation and accommodation as a supporting part. Infrastructure is needed to mutually support the implementation of activities, such as roads and stadiums (Matheson, 2008). Accroding to Sitepu (2019, the important indicator of the good governance of tourism in the priority destination where the destination has run the management and development of tourism and destination with the principles of Sustainable Tourism Development (STD). According to Simanihuruk (2019). It can be concluded that tourism facilities are the convenience of visitors to enjoy, feel the comfort that has been provided by

a tourist attraction that has facilities in order to satisfy or achieve the satisfaction of visitors to a tourist destination.

Tourism Sustainability

The idea of sustainability in tourism arises from the recognition that tourism activities can lead to a decline in natural resources, both at short and long terms. It is the main reason that the principles of sustainable development should be the focus for tourism as a mechanism for development (Fathimath, 2015). For this reason, sustainability must be applied to all areas that include key attractions, supporting factors, and infrastructures that contribute to tourism destination competitiveness in tourism development and all forms of tourism, including mass tourism (UNWTO, 2015).

Sustainability must be applied so that any tourism events can be held continuously over years without negative impacts on the environment. In this context, support from stakeholders such as government, business sector, and local community, is very strategic for the development of sustainable tourism (Byrd, 2007). Kencana (2019) explains that the immediate effects of tourism at this destination especially for the improvement of economic benefits have come from visitors' activities. However, to make it sustainable, the local people must also empower their capacity as well as their competencies in providing qualified tourism products/services. The events industry, including festivals, meetings, conferences, exhibitions, incentives, sports and a range of other events, is rapidly developing and makes a significant contribution to business and leisure related tourism. Events are important motivator of tourism, and figure prominently in the development and marketing plans of most destinations (Getz, 2008: 403 - 428). Acording to Ardani (2017) for special event with job fair activities, easy access by public transport and large parking area are considered very important by the visitors. It does make sense because the job seekers in general use public transport or motorcycle as their transportation. The most important indicators of site selection for such event are the easy access, the availability of the public transportation, as well as the availability of rooms with different activities such as seminar and presentation.

The Needs of Infrastructure

Infrastructure is more focused on providing preconditions for development, in this case tourism development (Mandic, Mrnjavac, and Kordic, 2018). The infrastructure development facilitates access for communities and visitors. In a tourism development, infrastructures are

deliberately built to provide tourists with access to carry out tourism activities. This tourism infrastructure is related to all elements in a destination that enable and encourage the tourism development (Swarbrooke and Horner, 2001). In a broader sense, such infrastructure includes all facilities used by the tourists when they leave homes, reach tourism destination, and return home (Lohmann and Netto, 2017). In fact, most tourism infrastructures are continuously used by local residents and only used by the tourists in certain periods (Hadzik and Grabara 2014). Tourism infrastructure development is related to the development of sustainable tourism (Sharpley, 2009). Once built, tourism infrastructure can affect the competitiveness of tourism destination, increases the efficiency of production and distribution of tourism services, and allows the supply of tourism services (Mandic, Mrnjavac, and Kordic, 2018).

In a bicycle race as a form of sports tourism, the infrastructures required to support tourism development are roads, transportation modes, and accommodation facilities for the tourists. Deenihan and Caulfield (2015) have examined how tourists assess different types of tourism infrastructure and they are ready to double cycling time if good infrastructures are available. Gunawijaya and Pratiwi (2016) stated that repairing, structuring and developing the tourism destinations based on local culture and environmental sustainability is the best strategy to develop tourism development.

This strategy consists of tourist attractions development, variety activities, improvement of infrastructure, accessibility, and organizes the events. Therefore, the organizing committee of a road bicycle race event should work together among stakeholders to build new infrastructures and improve the existing ones to support tourism development in accordance with what is needed by racers as tourists, so that the road bicycle race as a form of sports tourism events can be sustainable. The stakeholders can include government, private sector, and local community, particularly in the development of tourism infrastructure.

METHOD

Based on the assumption and aims of the study, the researchers conducted this research using a descriptive qualitative method to explore information in-depth with a semi-structured interview technique from a number of informants to understand the stakeholder collaboration model applied at the TdS event. The informants interviewed were the organizing committees (authorities in Local Government Units such as the Sub-

Departments of Tourism, of Public Works, and of Transportation at province and regency/municipality level as well as the Police and Event Organizer/EO), especially for examining the collaborative approach they adopted as stakeholders in the 2018 TdS event. In-depth interviews were also conducted with racer teams and officials as well as invited guests to understand their perceptions on the availability of infrastructure and its quantity and quality, viewed from roads, transportation modes, and accommodation facilities. Such interviews were also conducted with a number of spectators and local people, especially at the *start* and *finish* locations in each stage of the TdS event in certain tourism attractions to understand their perceptions on the successful TdS events they witnessed. The research data were analyzed by a descriptive qualitative technique by classifying the results of in-depth interviews according to the aims of the study and used to analyze the stakeholder collaboration approach for the development of sustainable tourism in the TdS events held annually in West Sumatera for ten-year period (2009-2018).

RESULTS AND DISCUSSION

Tour de Singkarak

Most of the TdS participants came from international teams that had agreed to international bicycle racing events. The number of countries that are part of the TdS has increased from 2009 to 2017, but it is different from the number of teams and the number of participants which has fluctuated. The highest number of participating countries occurred in 2015 and the lowest in 2011. The TdS implementation report showed the average number of teams needed was 23 teams, the lowest of 20 teams, the highest of 25 teams. The average number of participants was 180 people, the highest in 2012 (250 people) and the lowest in 2018 (106 people). The number of TdS participants from 2009 - 2017 depends on fluctuations, factors that affect athlete performance and implementation schedules. National and local participants reduce the amount due to achievement factors that do not meet the standards for entering TdS qualifications. The teams that successfully escaped and became part of the TdS from 2009 - 2015 were the National Team, the Pegasus Cycling Team, KFC Jakarta and the Banyuwangi Highway Cycling Club.

Pegasus Cycling Team Indonesia is the official representative of Indonesia for some international scale cycling events such as Tour de China and Tour de Langkawi (Informant 1). In 2009 there were 10 domestic teams from 25 TdS participating teams, in 2015 there were only 5 domestic teams left from the 24 participating teams (TdS Report). One of the conditions that must be met by TdS to get a class increase is to increase the number of world riders and reduce the number of national teams (UCI). *Tour de Singkarak* (TdS) is an official international road bicycle race event combining sports and tourism activities by cycling at a long distance of several stages in West Sumatera Province. The event was held for ten-year period (2009-2018). The name *Singkarak* is taken from name of the largest lake in West Sumatera. Lake Singkarak is located in three regencies, i.e.: Tanah Datar, Solok, and South Solok. This sport activity is carried out by cycling across 18 regencies/municipalities in West Sumatera, except Mentawai Regency. TdS is a sports tourism event held annually for the development of sustainable tourism in West Sumatera. TdS is categorized as a class 2.2 event of Asia Tour, similar to the event like the *Tour de Langkawi* (TdL) in Malaysia where racers from various countries can participate and also included in the official calendar of world cycle organization (*Union Cycliste Internationale*—UCI)) (www.uci.org). The initial moment of TdS began from a tourism attraction of Taplau Beach in Padang City and finished at Lake Singkarak, Solok Regency. Along the road bicycle race, there are various interesting tourism attractions. The event was designed to pass through various leading tourism attractions in West Sumatera. The selection of routes shows that it is a sports tourism event organized through a stakeholder collaboration at provincial and regency/municipality level for the development of sustainable tourism over years in West Sumatera.

Destination Management for Tour de Singkarak

The implementation of sports events only lasts for a short period of time, but the impact of infrastructure development can be felt by the community over a long period of time. Destination management including infrastructure has been prepared for an event competition that used as a public space. Tourist attraction during the TdS as sport tourism event has increased economic and social value for the region and the community.

Table 1. Tourism attraction in West Sumatera

No	Potentials	Tourist Atraction	Location
1	Mountain	Mt. Merapi	Padang Panjang City
		Mt. Singgalang	Agam Regency
		Mt. Talang	South Solok Regency
		Mt. Tandikek	Padang Pariaman Regency
		Mt. Talamau	West Pasaman Regency
2	Hills	Peak Lawang	Agam Regency
		PeakLangkisau	South Coastal Regency
		Peak Barisan (Kelok 9)	Payakumbuh City
		Peak Gagoan	Solok Regency
3	Lake	Lake Singkarak	Solok City & Tanah Datar Regency
		Lake Maninjau	Agam Regency
		Lake Atas dan Bawah	South Solok Regency
		Lake Talang	Solok Regency
		Lake Tomosu	Sawahlunto City
4	Valley	Valley Harau	Payakumbuh City
		Valley Anai	Tanah Datar Regency
		Valley Sianok	Bukittinggi City
5	Water Falls	100 tingkek	Padang City
		Nyarai	Padang Pariaman Regency
		Sarasah Donat	50 Koto Regency
6	River	Jembatan Akar	South Coastal Regency
		Lubuk Minturun	Padang City
		Batang	Dharmasraya Regency
		Rimbo Panti	Pasaman Regency
		Kuantan	Sijunjung Regency
7	Beach	Air manis	Padang City
		Tiram	Padang Pariaman Regency
		Gondoriah	Pariaman City
		Mandeh Island	Pesisir Selatan Regency
		Siberut Island	Mentawai Archipelago Regency
		Sasak	West Pasaman Regency

Source: Survey, 2018

Table 1 representing various tourism attraction in West Sumaterwe. The implementation of the TDS acts as a trigger for tourist attraction management and regional development, ranging from amenities to accessibility for tourism. Tourism can be used as an alternative to regional income so that its potential needs to be optimized. The potential of tourism in West Sumatera through which TDS is very diverse, ranging from natural attractions to artificial and cultural.

Promotion of TdS as Sports Tourism Event

Promotion in the form of advertising on TV is supported by the background of natural beauty and culture that stretches in the Province of West Sumatra. One of the strengths of implementing TdS is the collaboration between the tourism ministry and several national and international TV stations to promote what, where, when, why, and how TdS takes place. During the nine times of TdS implementation, only about the last 3 years the TdS advertisement aired on the national Metro TV station. Advertising in national media is one of the tasks of the Ministry of Tourism. Advertising in local media is the responsibility of the provincial and district and city governments.

Table 2. A Summary of the TdS Events for Ten-year period (2009-2018)

TdS	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Regency/ Municipality	4	6	12	14	17	18	18	17	18	16
Stages/Days	4	6	7	7	7	9	8	8	9	8
Countries	11	15	15	18	24	23	26	18	25	26
Teams	25	22	25	25	21	20	24	23	25	20
INA Teams	10	11	11	9	6	6	5	5	5	5
Foreign Teams	15	11	14	16	15	14	19	18	15	15
Racers	225	217	225	250	220	131	135	109	108	114
Track (km)	188	551.7	743.5	854	117.3	1,250	1,342	1,074	1,226	1,267
Prizes (Million)	600	750	750	1,000	1,200	1,300	1,400	2,200	2,300	2,300
Time	Apr-May	Jun	Jun	Jun	Jun	Jun	Oct	Aug	Nov	Nov

Source: Data processed, 2019

The division was realized because of good coordination between various parties, not limited to agencies with an interest in the field of tourism, but other midwives such as: Public Works Agency (Road Infrastructure and Spatial Settlement), Transportation Department, Health Office, and no less important is the National Police and the TNI. This means that TdS is a real blend of sport and tourism, as an effort to promote tourism which provides an opportunity for racers to act as tourists, enjoying the beauty of the natural charm that unfolds. The racers become "advertising stars" tourist attraction, when they are covered by the mass media with a background of natural or cultural barriers, viewers from various other regions can also watch and begin to generate interest to visit the location. The main objective of the implementation of the TDS program is to promote the potential of regional tourism through print media and electronic media.

The selection of routes around the tourist area is a strategy of combining tourism and bicycle racing. Every year the number of tourist attractions that are part of the start or finish location increases. The start and finish position attracting more spectators to gather than the area that is just passed. The TdS as sport tourism events were held annually in West Sumatera Province at different times. The timing changed over years in accordance with the Asia Tour race schedule issued by UCI.

Table 2 shows a summary of TDS events for ten-year period (2009-2018). The events were usually held between April and June for one week. However, in 2015 the event was held in October, in 2016 August, in 2017 November, and in 2018 November as the events must be adjusted to the world road bicycle racing season and the readiness of shared budget among regencies/municipalities involved.

However, the events were successfully held annually for ten-year period (2019-2018).

Contribution and Coordination

The implementation of TdS in West Sumatra Province has made a positive contribution in the field of infrastructure. Contributions that can be seen are the roads becoming smoother, lodging is easily found in the area, and public transportation is increasingly easy. TdS as a sport tourism has successfully become the main event in the province of West Sumatra which consists of 19 Regencies and Cities. The advantage of TdS is good coordination between various regencies, cities and ministries. Coordination is one of the obstacles faced by several regions that try to organize events, especially with other goverement and private agencies not only the tourism office but also public works office, and transportation agency. The involvement of the regency and the city as the host has increased because of the awareness that TdS has given indirect investment for the region. Potential, especially the main attractions of the region are promoted through TdS, and supported by good road infrastructure to make it more attractive for tourists coming after TdS. On one hand, TdS increases regional expenditure, but on the other hand, TdS helps promote the region. The TdS event coordination meetings were held regularly from the end of TdS activities in the previous period to before the implementation of TdS in the next period.

These meetings were adjusted to the TdS schedule, and for ten-year period they were held between April and November and most was held in the middle, i.e. June. Such event coordination was a strategic factor influencing the sustainability of TDS events held annually for ten-year period (2009-2018). Each stakeholder had an authority to maintain the roads, namely: national roads under the authority of the National Road Development Agency as well as provincial and regency/ municipal roads under the authority of the Sub-Department of Public Work maintaining the roads accross all regencies/municipalities in West Sumatera.The stakeholders from central, provincial, and regency/municipality governments have proven to be able to coordinate well to maintain the roads along the TdS routes so that the TdS event can be held annually for ten-year period (2009-2018).

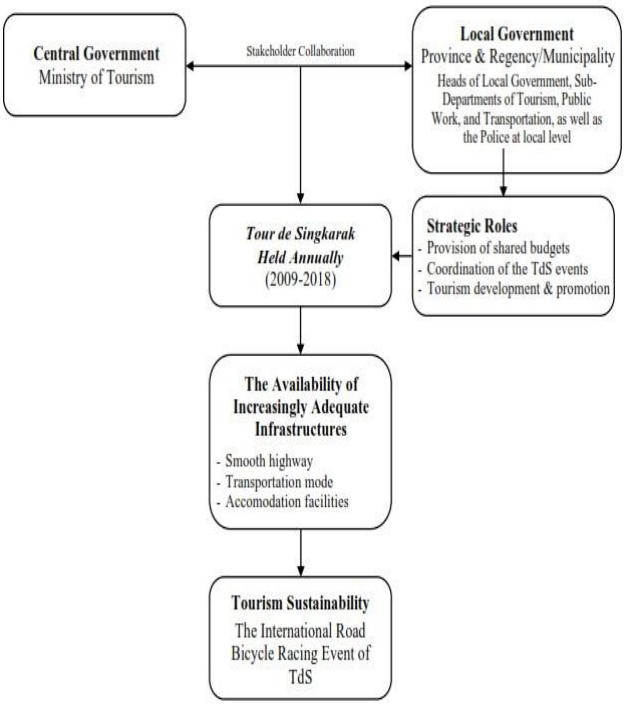


Figure 1. Collaboration and coordination among stakeholders at central and local government levels
(Source: Primary data processed, 2019)

Stakeholder collaboration through event coordination among the organizing committees in West Sumatera can also be seen in the process of determining the routes for the TdS events for ten-year period (2009-2018). The determination of these routes involved three parties, i.e. regency/municipal, provincial and central governments. They were actively involved in the coordination until the stage of finalization of TdS events accross regencies/municipalities in West Sumatera. Figure 1 shows the flow in the determination of TdS routes involving the stakeholders from provincial and regency/municipal and central governments. At the local level authorities involved in coordinating the determination of TdS routes were Heads of Local Governments as well as the Sub-Departments of Tourism, of Public Works and of Transportation. The Sub-Department of Tourism coordinated the TdS events because TdS is basically a sports tourism event. The Sub-Department of Public Works maintained roads along the TdS routes in West Sumatera.

The Sub-Department of Transportation provided the traffic signs and conducted a traffic congestion engineering. Meanwhile, the police in West Sumatera secured the events so that the racers could safely race. At the central level, the parties involved were the Ministry of Tourism and the Race Controller. The finalization in the determination of TdS routes was done through coordination involving the Ministry of Tourism and the Sub-Departments of Tourism, of Public Works, and of Transportation, as well as the Event Organizer.

Tourism Development

For developing the sustainable tourism in West Sumatera, stakeholders designed TdS to pass through most of the leading tourism attractions at each regency/municipality. TdS is a concrete integration of sports and tourism as well as one of the efforts to develop and promote

the sustainable tourism that provide racers and their official teams with opportunity to be tourists enjoying the beauty of natural scene exposured. The racers are the "advertising stars" of tourism attractions when they were covered by mass media with the background of natural beauty or culture and viewers from various other regions can also watch and begin to generate interest to visit the location.

Table 3. Promotion of Tourism attractions in the TdS Events in West Sumatera

No.	Locations	Period of TdS	Tourism Attractions
1.	Padang Panjang Municipality	2009-2018	Mount Marapi
2.	Agam Regency	2010, 2014-2018	Mount Singgalang, Puncak Lawang Hill, Lake Maninjau, Lawang Park
3.	South Solok Regency	2009, 2011, 2016-2018	Mount Talang, Twin Lake (Up and Bottom)
4.	Padang Pariaman Regency	2012, 2018	Golf Field, Anai Valley, Mount Tandikek, Nyarai Waterfall, Tiram Beach
5.	Pariaman Municipality	2010-2018	Gondoriah Beach
6.	Pasaman Regency	2013-2018	Equator Monument, Rimbo Panti River
7.	West Pasaman Regency	2013-2018	Mount Talamau, Sasak Beach
8.	South Pesisir Regency	2012-2018	Puncak Langkisau Hill, Jembatan Akar River, Mandeh Island Beach, Carocok Beach
9.	Payakumbuh Municipality	2011-2018	Ngalau Indah Café, Kelok 9 Bridg, Harau Valley
10.	Solok Regency	2009-2018	Puncak Gagoan Hill, Lake Talang
11.	Solok Municipality	2014-2018	City Park, Lake Singkarak
12.	Tanah Datar Regency	2009-2018	Baso Pagaruyung Palace, Lake Singkarak, Anai Valley
13.	Sawahlunto Municipality	2009-2018	Tourism Park of Kandi, Lake Tomosu
14.	Bukittinggi Municipality	2009-2018	Jam Gadang (Big Clock), Sianok Valley
15.	Padang Municipality	2014-2018	Cultural Park, 100 Tingkek Waterfall, Lubuk Minturun River, Air Manis Beach, Taplau Padang
16.	50 Koto Regency	2011-2012, 2016-2018	Harau Valley, Waterfall Sarasah Donat
17.	Dharmasraya Regency	2015-2018	Sport Center, Batang River
18.	Sijunjung Regency	2014-2018	Silokek Pasir Putih, Pancasila Building, Tourism Village, Kuantan River

Source: Survey data processed, 2018

Table 3 shows that stakeholders in West Sumatera have since the beginning designed that the TdS held annually passed through all those leading tourism attractions for the development of sustainable tourism in the region. Since held for the first time in 2009, the TdS events have consistently offered a mix of sports and tourism, especially road bicycle race and tourism attractions spreading throughout the regencies/municipalities in West Sumatera. In 2018, teams from various countries with professional racers who have competed in various international events participated. TdS has

been an attractive sports tourism activity for racers and their officials who deliberately come and compete. Their purpose was not only to train their abilities, compete and win prizes, but also enjoy the natural and cultural beauty in West Sumatera.

The *start* and *finish* locations with unique tourism attractions become one of the goals of racers and their officials to come back in the future. The goal of TdS events is to promote the potentials of tourism attractions by persuading the arrival of people to watch the road bicycle race in various regions. The promotion through advertising on television was supported by beautiful natural and cultural scenery across West Sumatera regions. An interesting phenomenon in the TdS events held annually is stakeholder collaboration between the Ministry of Tourism and both national and international television stations to promote what, where, when, why, and how the TdS events are held. Advertising in national media is a part of the Ministry of Tourism's tasks, while advertising in local media is the responsibility of provincial and regency/municipality governments. For the communities in West Sumatera, the promotion of TdS events aimed to remind them about a big party (*alek gadang*) that will soon be held around their area.

The Availability of Tourism Infrastructure

The willingness of regency/municipal governments to be the host for the TdS events required a large amount of capital for roads, operational costs, and event management. This means that the availability of investment to build and maintain the adequate infrastructures for TDS was the most important factor to determine whether or not the TDS events could be held in each regency/municipality annually. If a regency/municipal government was unable to provide the investment or budget for the construction and improvement of infrastructure, the TdS events would not be held in the regency/municipality itself. Sport infrastructures required in the TdS events were smooth roads, diverse transportation modes, and accommodation facilities with star ratings.

Investment in the development and maintenance of the infrastructures over years was strategic not only for the TdS events held annually, but also to make the infrastructures the public goods for the development of sustainable tourism with high socio-economic values for local communities in the long run. From the beginning, central government through the Ministry of Tourism and local governments (at province and regency/municipality level) have

supported the development and maintenance of roads, transportation modes and accommodation facilities continually in line with the TdS events held annually. Infrastructure development was intended to support the TdS events for sustainable tourism in West Sumatera. Central and local governments are aware that holding the TdS events surely involves stakeholder collaboration to meet the requirements of smooth roads, diverse transportation modes, and accommodation facilities. Thus, the infrastructures not only supported the TdS events held annually for ten-year period since 2009 but could also provide communities with great socio-economic benefits for the long run.

Transportation modes

To support of the TdS events held annually since 2009, the number and quality of transportation modes increased, i.e. inter-city inter-provincial buses, trains, taxi, and travel. After four successful TdS events (2009-2013), the Government of West Sumatera Province improved the mode of railway transportation, increased the number of departures to support the TdS events, and to date has a railway connecting several regions, particularly Padang-Pariaman. The train transportation mode was developed again after Pariaman Municipality participated in the TdS event. Considering that the TdS events promoted the leading tourism attractions in Pariaman Municipality, such as Gondoriah Beach, the municipal government increased the number and quality of transportation modes because the beach was used as the *start* and *finish* locations for the TdS events. The Station in Pariaman Municipality was located in the tourism areas of Gondoriah Beach, so that tourists can directly enjoy the nuance of beach after getting off the train.

The Government of West Sumatera Province also cooperated with PT. KAI to provide a mass transportation, and trains were also ever used by TdS racer teams as transportation from Padang Panjang to Sawahlunto. The racers not only did mobility but enjoyed the beautiful natural scenery of West Sumatera. The increasing number and quality of railway supported the TDS events sustainably as sports tourism ones in the following years. The availability of transportation modes has increasingly supported the TDS events in West Sumatera. Number and quality of railway transportation modes increased over years, so did the trends of train passenger. The increase was directly proportional to the revenue from ticket sales. Passengers were from the Sibinuang Train, Padang-Pariaman, that has operated dailiy as well as the Dang Tuangku Tourism Train that has operated on Saturday, Sunday, and national holidays.

In early 2016, the Government of West Sumatera Province established a partnership with PT. KAI to revive the railway that connects some regencies/municipalities. In addition, other transportation mode such as trans-Padang Bus was also available for the TdS events held annually in West Sumatera Province for ten-year period (2009-2018). It was operated by the Sub-Department of Transportation since 2014 to provide people with a proper transportation in Padang City.

The promotion as tourism city has been the Program of the Sub-Department of Tourism to support the development of tourism, being supported by the Sub-Department of Transportation and of Public Works in accordance with the focus determined by Heads of Local Governments. Several types of public transportation were available in West Sumatera i.e. inter-city inter-province bus, inter-city in province bus, rental/travel cars, taxis, tourism vehicles, and connecting transportation. Each transportation mode has its trends and supports the TDS held annually.

Accommodation facilities

Since the first TdS event in 2009, there has been a growth in accommodation facilities in various regions. The successful TdS events encouraged stakeholders in the regencies/municipalities traversed by the TdS racers to increase the number of adequate accommodations, especially star hotels in Padang City and Bukittinggi City. The increasing number of accommodation facilities can be seen from the increased number of hotel rooms in West Sumatera by 4,726 units in 2008 and increased by 58.66% to 8,056 units in 2015 (BPS, 2016). It is very reasonable because accommodation is an important part of the TdS events, considering that most racer teams (racers and officials), UCI members, and invited guests tend to act as tourists who come from outside the area and they really need adequate accommodation facilities as part of their tourism activity. Each regency/municipal government in West Sumatera improved the accommodation facilities for the development of sustainable tourism and the bargaining position as a reliable tourism destination also increased, especially if the areas were the grand opening locations of TdS events.

Each of the regions competed along with the TdS events to open new investment opportunities for new accommodation facilities. The cities such as Padang and Bukittinggi have accommodation facilities with adequate quantity and quality to support the TDS events held annually. Such accommodation facilities are needed

because the TdS events moved from one location to another, every mobility goes hundreds to thousands of kilometers, and not all participants could return to the starting point. Both the committee and participants who did not return to the starting point stayed at the *finish* location. This led to the development of five-star hotel accommodation facilities, especially in cities such as Padang and Bukittinggi. Padang City was the *grand finish* location in the TdS events because it was able to provide five-star hotels with adequate quality for international tourists. To support the TdS events, Tanah Datar Regency, for example, also built a 4-star accommodation facility. In addition, 4-star hotel was built in Batusangkar to support the TdS events and tourism in general. The TdS events were also supported by the increased investment in hotel development, at least 4-star in other regencies/municipalities, such as in the Anai Valley, Padang Pariaman Regency, as a form of cooperation between regency government and the private sector.

CONCLUSIONS AND SUGGESTIONS

The TdS events have been successfully held for ten-year period (2009-2018) in West Sumatera. Destination Management for TdS was influenced by stakeholder collaboration between central, provincial, and regency/municipal governments in West Sumatera. The stakeholder collaboration in the TdS events could be seen from event coordination, contribution, and tourism development and promotion. Such coordination as a part of destination management and marketing has led to a harmonious cooperation in the development and improvement of infrastructures, i.e. roads, transportation modes, and accomodation facilities with increasing quantity and quality in an integrated manner for the development of sustainable tourism along the TdS events held annually for ten-year period (2009-2018).

In the availability of increasingly adequate infrastructures, racer team and its officials as international sport tourists in the TdS events could enjoy the traveling on the increasingly even and smooth roads with high level of comfort and safety to destination. They could also easily access diverse transportation modes, such as trains, trans-West Sumatera buses, rental/travel cars, tourism buses, connecting vehicles and quality cargo taxis. Provincial, regency, municipal and city governments should build a proper destination manegement and collaboration through coordination among the relevant stakeholders in the provision of shared budgets, event coordination, development

and promotion of tourism and destination management with impacts on the development and improvement of even and smooth roads, diverse transportation modes, and accommodation facilities. Policies should be implemented in order that racer teams and their officials, invited guests, and the organizing committees can stay overnight at each *start* or *finish* location in each regency and municipality involved and encourage people in each region to watch the event for the development of tourism included in destination management.

REFERENCES

Ardani, E.G., (2017). The Importance of the Venue Selection in an Event Organization Case Study: Special Event Organization Rencontre Alumni Entreprise 1 & 2, *E-Journal of Tourism* Vol.4. No.1. (2017): 46-54.

Baade, R.A. dan Matheson, V.A. (2003). *Bidding for the Olympics: Fool's Gold? Transatlantic Sport*. London: Edward Elgar Publishing.

Brown, G., Chalip, L., Jago, L., & Mules, T. (2004). The Sydney Olympics and Brand Australia. Dalam Morgan N., Pritchard A., & Pride R. (Eds.), *Destinations branding: Creating the unique destination proposition.* Oxford, UK: Elsevier Butterworth-Heinemann.

Byrd, E. T. (2007). Stakeholders in sustainable tourism development and their roles: Applying stakeholder theory to sustainable tourism development. *Tourism Review*, 62(2), 6–13. doi: 10.1108/16605370780000309

Deenihan, G., Caulfield, B. (2015), "Do tourists value different levels of cycling infrastructure?", *Tourism Management*, Vol. 46, pp. 91-101. Doi: https://doi.org/10.1016/j.tourman.2014.06.012

Getz, D. (2007). *Event Studies: Theory, Research and Policy for Planned Events*. Oxford: Butterworth-Heinemann.

Getz, D. (2008). Event tourism: Definition, evolution, and research, Tourism Management 29 (2008) 403–428

Gunawijaya, J., and Pratiwi, A., (2016). Destination Development for Rural Tourism Area in Wanayasa, Puwakarta, West Java, Indonesia, *E-Journal of Tourism* Vol.3. No.2. (2016): 88-95

Hadzik, A., and Grabara, M. (2014). "Investments in recreational and sports infrastructure as a basis for the development of sports tourism on the example of spa municipalities", *Pol. J. Sport Tourism*, Vol. 21, pp. 97-101. Doi: 10.2478/pjst-2014-0010.

Kencana, E.N., (2019). The Role of Local Government in Fostering the Economic of Community: A Lesson from Tourism Development at Nusa Penida Islands of Bali, *E-Journal of Tourism* Vol.6. No.1. (2019): 119-129

Lohmann, G., and Netto, A.P. (2017). *Tourism theory concepts, models and systems*, CABI, Oxfordshire.

Ritchie, J. R. B., & Smith, B. (1991). The impact of a mega-event on host region awareness: A longitudinal study. Journal of Travel Research, 30(1), 3–10.

Sharpley, R. (2009). *Tourism development and the environment: Beyond sustainability?* Earthscan. Oxon, UK

Simanihuruk, M., (2019). Tourist Attraction and Tourist Facilities Intentions to Visitor Satisfaction: Case of Sindang Barang Cultural Village, *E-Journal of Tourism* Vol.6. No.2. (2019): 210-224.

Sitepu, E.S., (2019). Improving Tourism Destination Management Through Sustainable Tourism Development Model A Case Study on TSR., *E-Journal of Tourism* Vol.6. No.2. (2019): 252-268.

Smith, A. (2005). *Reimaging the City: The Value of Sport Initiatives*. *Annals of Tourism Resarch*, 32: 217-236.

Susanti, R., Priyambodo, T.K, and Janianton Damanik, Soeprihanto, J., (2017). *Journal of Humanities and Social Science, Vol. 22 (10).*

Swarbrooke dan Horner, Swarbrooke, J., Horner, S. (2001). *Business travel and tourism*, Butterworth-Heinemann, Jordan Hill, Oxford. Doi: 10.1016/B978-0-7506-4392-4.50012-4

Timareva, S., Arabska, E., and Shopova, I., (2015). Role of Destination Management and Marketing Organizations in Regional Development, *Trakia Journal of Sciences*, Vol. 13, pp. 96-102.

Coffee Tourism: from Home Products to Attractions

Vincent Sylvester Leewellyn and Santi Palupi

Hotel Business Program, Podomoro University

Corresponding Author: vinsyl1303@gmail.com

ARTICLE INFO

Received
28 February 2020

Accepted
01 March 2020

Available online
31 March 2020

ABSTRACT

The development of rural destinations is currently one of the strategies to increase the level of welfare for the community. Indonesia, besides having natural resources, also has others potential resources such as culture, ethnicity, local languages, and many more. Those potentials can be further developed as rural destinations. This research reaches the exploratory stage to find out what is potential, excellence and what must be done in order to become a rural destination. A qualitative approach is used in this study with Head Village in Sukadana along with community leaders and organizational groups such as Youth Organization, KOMPEPAR (The Driving Force for Tourism), BUMDes (Village-Owned Enterprises), etc. The result of this research finds out the potential resources that already exist in Sukadana like Natural Resources (Cikondang Waterfall, Gunung Padang Site and Tea Plantation) and Human made – not originally designed to attract Tourists and also suggest the activities that will improve the attractions. The conclusion finds that the village community still need more improvement in knowledges and skills about rural destinations, and also the local government is still not realized yet for Sukadana Village potential resources to be a rural destination.

Keywords: Coffee, Tourism, Attractions, Rural Destination

INTRODUCTION

Tourism is one the considerations in improving the economy in many countries. With the increasing number of tourists, economic growth in tourism destinations can be increased. Indonesia has natural resources, culture, ethnicity, local languages, which is a potential in developing tourism and the economy. The data from the International Coffee Organization (ICO), shows that Indonesia is the fourth largest coffee producer in 2018. Brazil is still the largest coffee producer in the world, followed by Vietnam and Colombia.

Coffee production has not only become the source of revenues, like export, but also can be developed into a unique and interesting tourism that can be developed into tourist destination through

the rural surrounding coffee producers. The other way to develop a rural into tourist destination is to make the potential into attractions that can bring tourists, which is certainly supported by adequate facilities.

This research is useful to improve the socio-economic community through the development of resources that are owned to provide added values for increasing the economy for communities. The interesting in this study is the history of coffee in Indonesia during the Dutch colonial era. Rooseboom (2014) stated that it began in 1616 where Indonesia was still in Dutch colonialism. At that time, coffee merchants wanted to monopolize coffee, where the seeds of fertile or living plants were not allowed to be exported out of the Arabian Peninsula. Pieter Van den Broecke, merchant and administrator of The Netherlands East India Company (VOC – *Vereenigde Oostindische Compagnie*), managed to bring coffee plants from Mocha, Yemen and brought them to the Netherlands. However, one of the difficulties is Netherlands is not suitable for large-scale cultivation because of the climate.

Therefore in 1696, the VOC succeeded in sending live coffee plants to Batavia (now Jakarta) to be planted on Java. Where 10 years later, the VOC brought coffee beans from Batavia to Amsterdam to be planted in the Hortus, one of the oldest botanical gardens in Europe. (Lasmiyati, 2015)

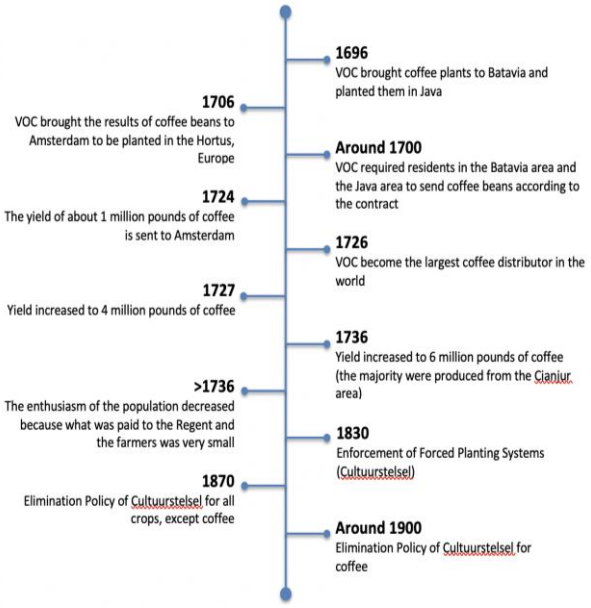
Around the 1700s, the VOC required residents in the Batavia and mountainous regions of West Java (Parahyangan) and the local governments (regents) to be obliged to send coffee beans in accordance with the contracts imposed by the VOC. The regents should ensure that people plant coffee, maintains plantations and provide coffee in good quality.

According to Breman (2014), in 1726, the VOC became the largest coffee distributor, from which half to third quarter of the coffee trade in the world came. The majority was from Cianjur region. Aria Wiratanu III, at that time who served as Regent of Cianjur I, produced and contributed the most coffee in the regions, which greatly benefited the VOC (Suriadinigrat, 1982).

Based on the history above, it can be seen that coffee plantations in Indonesia experienced rapid progress in the Dutch colonial era, and the highest quality coffee producing regions were in the Cianjur area.

Coffee as one of the attractions in rural destinations, can include history,

processes, and traditions as well as the ways to enjoy coffee from each of the characteristics of the area. The development of rural destinations in this study is the development of coffee farming-based tourism, conducted in Sukadana Village, Campaka District, Cianjur Regency, Indonesia.



Picture 1. History of Coffee is grown in Indonesia during Dutch Colonial era

LITERATURE REVIEW

Developed countries see tourism as the fastest-growing industry nowadays, according to Bishop (2014), these countries see the advantages by make Tourism as a priority of the development strategy. Tourism industry has the potential to be able to have a positive and negative impact on development and the environment. The positive impact that can occur in the region is to increase the economy, while the negative impacts that occur due to the number of tourists are cultural shifts, waste/pollution/waste produced increased and also there will be many social problems that arise. The problems that arise need to be handled properly so that they cannot be addressed and overcome along with the development of tourism. United Nations World Tourism Organization (UNWTO), focuses on the tourism development to improve the economy.

There are several studies that have shown that tourist attraction is very necessary in understanding the elements that encourage people to travel (Formica, 2002). The attraction of tourist destination, if there is more factors can meet the needs of tourists, that can be considered attractive and more tourists will come to these destinations.

Tourist Attractions are potential tourism that can be possessed by destinations, where the attractions can make tourists enjoy their vacation more. These attractions can cover all forms of natural and human-made resources, including culture, heritage, history, architecture, traditional arts, food, music, and craft that can attract tourists (Walsh-Heron, 1990; Crouch & Ritchie, 1999; Goeldner & Ritchie, 2003)

Attractions that can also attract tourist are attractions that can involve tourists actively in these activities, for example when we talk about coffee attractions, tourist can do some activities such as picking coffee cherries, then processing the cherries to separate from cherries and seeds, then the roasting process of the coffee beans. The attraction that can be interactive is the process of making a coffee drinks which will be taught and shown in the process and how to enjoy coffee traditionally.

According to Swarbrooke (1995), states that there are four categories in the development of coffee attractions, including:

a. Natural attractions, such as the area of coffee plantations, landscapes, natural resources around such as waterfall and many more.
b. Human made – not originally designed to attract tourists, such as building houses in a coffee plantation area that is used for various activities in processing coffee plants
c. Human made and purpose built to attract tourist, like a coffee museum (which can explain history), traditional methods of enjoy the coffee, and many more
d. Festivals and special events, such as coffee festival, coffee competition, and harvesting traditional coffee

The concern and attraction in coffee is the area of coffee plantations because the coffee beans are still traditionally processed. The nature and layout of the coffee plantations as well as the surrounding area will be an attraction which bring distinctive character of the coffee produced there. Petit (2007) states that in Ethiopia, one of the important aspects to keep and promote the heritage and culture is the traditional coffee making ceremony.

METHODOLOGY

This study utilized a qualitative descriptive method to study and describe the potentials, existing problems, and the subjective potentials that exists in the community in the rural that can make the development succeed. This method is also used because it will include observations about environmental conditions, interactions that occur in the community, activities of coffee farmers, existing local wisdom and can determine the extent of community acceptance in the changes that occur in the process of developing the rural destination.

The sampling technique was purposive sampling technique. Selected samples taken to have important roles in determining the development of rural destinations, as well as the stakeholders in the area, which consist of rural officials, community leaders, youth leaders, academics, tourists, community and local government.

The data collection technique was Focus Group Discussion (FGD), which aims at finding out the aspirations and needs of the community in developing rural tourism. The FGD is conduct with Village Head along with the community leaders and organizational groups such as Youth Organization, KOMPEPAR (The Driving Force for Tourism), BUMDes (Village-Owned Enterprises), etc.

RESULTS

The location of the study took place in Sukadana Village, Campaka District, Cianjur Regency, Indonesia. This is an area of around 1,313 hectares, with population of 5,908 people, consisting of 2,977 men and 2,931 women, mostly farmers. Rainfall ranges from 1,500 – 2,000 mm/year. It is located 900 – 1,100 meters above sea level and the temperature ranges from 19 – 28 degree Celcius. The humidity averages 65%/year.

Sukadana village borders on other villages such as Giri Mukti village in the North, Campaka village in the South, Sukajadi village in the East and Wangunjaya village in the West. There are some natural resources that can be enjoyed around the Campaka sub-district such as Gunung Padang Site, Cikondang Waterfall and Gunung Campaka Tea Plantation.

Sukadana village is an agricultural area where most of this area is filled with green plains, with the main livelihoods being farmers, farm laborers. For natural products, Sukadana village produces several agricultutal products, such as coffee, tea, banana, chili, tomato, tubers, avocado, edamame and many more.

Sukadana Village Head, Campaka sub-district, Cianjur Regency, Mr. Karmawan, said that the agricultural products are very diverse, it depends on the market demand. However, they are currently focusing on Coffee, which after being explored more deeply, the history shown that Cianjur was the Best and the Biggest producer of coffee in the Dutch colonial period.

Sukadana village has started running Arabica Coffee plantations since 2012. Already 6 years now, their production has almost reached 125 tons. In this 2019, 180,000 trees will be planted, in

which the 71,000 trees will be from the rural budget and the remaining will be paid by from West Java Province.

The interesting thing from the taste of coffee from Sukadana, that the Arabica Coffee that produced has an orange (citrus) aroma. This aroma makes the characteristic of Sukadana Coffee. The coffee tree planting system is planted through intercropping along with orange trees and banana trees. According to the Village Head and the residents, this makes the Sukadana Coffee has a distinctive aroma of orange (citrus).

There are more than 600 farmers that manage more than 200 hectares of Arabica Coffee plantations in Sukadana. After the coffee harvested, will be accommodated by Gapoktan (Combined Farmers Group). This fact shows that the development of rural destination in Sukadana focus on Coffee Tourism. The economic conditions in Sukadana are very dependent on the products that sold to wholesaler, which causes very low selling price. For the example like greenbean of coffee are sold around 2 – 4 USD per kilogram, depending on the quality grade produced.

Being a rural destination, open the opportunities to improve the economy of the communities in Sukadana. This is because it can open access for direct marketing the high quality of Arabica Coffee to consumers or tourists.

Table 1. Overview of the Conditions of the Sukadana Village

Valuation Items	**Sukadana Village**
Geographical	a. Total area ± 1,313 hectares b. Located at an altitude 900 – 1,100 meters above sea level c. The temperature is 19-28 degrees Celsius d. Humidity level ± 65%/year
Demographic	a. Total population 5,908 people, that divided into 2,977 men and 2,931 women b. There are ±215 families who own agricultural land from 628 farm families c. There are ±344 families who own plantation land from 744 family plantations
Economy	a. The majority of livelihoods are farmers and ranchers b. Agricultural products are corn, beans, tubers, chilies, tomatoes, eggplants, oranges, avocados, bananas, papaya, etc. c. Plantation products are coffee, tea, cloves, pepper and nutmeg d. Livestock products are cattle, buffalo, free-range chicken, goats, and sheep e. Agricultural and livestock products are sold to middlemen/wholesaler and entrepreneurs f. There are also employees of private companies and civil servants g. Gold mining
Socio-cultural	a. Pencak Silat
Infrastructure	a. There are 6 Maternal and Child Health Services dan 1 Health Center b. Electricity available c. There are 1 PAUD (early childhood education programs),

	4 elementary school, 1 junior high school, and 3 Islamic boarding schools d. There are already fine roads in the residential areas. But the road to go to tourist attractions such as Cikondang Waterfall and Tea Plantation is still rocky road
Potensi Tempat Wisata	a. Gunung Padang Site b. Cikondang Waterfall c. Campaka Tea Plantation

Based on the table above shows sufficient conditions and potential to be developed as a rural destination. The plan to develop rural destinations is one strategy to increase community income. Being the rural destination, Sukadana will be known by others area that produce coffee which has a distinctive aroma of orange (citrus)

DISCUSSION AND CONCLUSION

Discussion and implications

The development of coffee-based rural destination can also believe to create a balance of the environment, socio-culture and economy in the community. The balance of the environment will certainly avoid the occurrence of the conversion of agricultural land. The balance of socio-cultural factors, it can enhance the role and cooperation between communities due to having one common goal, developing a rural destination. Against economic factors, it will increase the economy from several sector such as agricultural products, tourist attraction packages, and homestay.

Rural destinations as a form of integration between accommodation, attractions and supporting facilities presented in one unit. This requires the desire and commitment of all levels of society that exist in developing the rural destination. According to Abdillah (2016) development of tourism destinations significantly affected the level of community involvement. Its means that development of destination needs to gather all level of society to involve in development.

According to Swarbrooke (1995), states that there are four categories in the development of attractions, such as Natural Attractions, Human made – not originally designed to attract tourists, Human made – Purpose built to attract tourists, and Festival / Special Events. If viewed from the condition of Sukadana, it is very possible to develop attractions, such as:

1. Natural Attractions

Sukadana has several Natural Attractions such as Cikondang Waterfall and Gunung Padang Site.

a. Cikondang Waterfall

Cikondang waterfall is known as the Little Niagara and has height of 50 meters. Cikondang waterfall is not a form of original spring, but from the end of a river that falls from a large cliff. The shape Cikondang waterfall is similar to Niagara Falls, it's just smaller. The condition of Cikondang Waterfall can be a tourist attraction. It's just that there needs to be attention from the local government to be able to provide supporting facilities such as public bathrooms, or adequate trash bins.

b. Gunung Padang Site

The Gunung Padang site is a hill located in Karyamukti Village, Campaka District, Cianjur Regency, West Java. Bukit Padang has 300 steps. It has an area of about 4,000 meters with an altitude of 885 meters above sea level. The Gunung Padang site has a lot of menhirs and dakon stones from andesite which contain high iron content. This site has five terraces that make it even more attractive. This is usually used for worship and pilgrimage.

On the first terrace, it is thought to be a performing arts scene with serimpi dance. On this terrace there are also gong stones and gamelan stones that are pitched when hit. The first terrace is also called Pamuka Lawang (opening door), characterized by two stones that stand in a position like a door.

On the second terrace, there is a granarys stone, a stone sitting and a stone of view to Mount Gede - Pangrango. On the third terrace, called the Crown of the World, On the fourth terrace, there is a stone with Kujang carvings.

On the fifth terrace is called a throne. There is a Throne stone which is a place where Prabu Siliwangi relaxes when meditating or calming down.

The name Gunung Padang, taken from the words Padang in Javanese and Sundanese means Light. When we stand from Mount Padang, we can see the

City of Sukabumi, Cianjur Cipanas, and Bandung. The orientation of the direction from Mount Padang is facing Gunung Gede. In 2014, Gunung Padang was made the President's National Cultural Reserve.

2. Human made – not originally designed to attract Tourists

    a. Gunung Campaka Tea Plantation

    This plantation is located in Campaka Village, Campaka District, Cianjur Regency with an altitude of 900 - 1,200 meters above sea level. With an average temperature of 24-27 degrees Celsius and has an area of around 765 hectares.

    b. Coffee Farm

    Sukadana Village has around 200 hectares of coffee plantation land which in the future will continue to be developed.

    c. Coffee Processing Facilities

    Sukadana Village already has a location to process coffee fruit that has been picked from the plantation. Equipment owned by Sukadana such as Pulping Machine, Grader (coffee bean sorting machine), Roasting Machine and Grinder

3. Human made – purpose built to attract tourists

    Sukadana does not yet have attractions that are specifically made to attract tourists. The attractions that can be made by Sukadana related to plantations are as follows:

    a. The coffee processing process, this can be started from the process of picking coffee fruit directly from the coffee plantation, then proceed with the processing of coffee such as putting coffee fruit into Pulping Machine which functions in separating fruit from coffee beans, drying the coffee beans in a traditional way such as drying seeds outdoor coffee, then sorting coffee beans in terms of the size and quality of coffee beans, roasting the coffee beans to the desired level, and the process of making coffee drinks that can be enjoyed afterwards

    b. The Coffee Museum, can make a kind of storyline, where according to history Cianjur is the largest and best coffee-

producing region in Indonesia and even throughout the world during the Dutch colonial era VOC. This can be started from the collection of images and evidence that can be packaged in such a way that can attract tourists.

c. Homestay Program, where this program allows tourists to feel the living and living conditions the same as the natives in Sukadana. Where it will be very interesting because tourists must be able to follow the original work of the host of each Homestay, such as farmers, breeders, etc

4. Festival and special events

Sukadana does not yet have a Festival or Special Events to attract tourists. It has already begun to be planned for making events related to the potential possessed such as:

a. The Manual Brewing Competition, Sukadana can make the Manual Brewing competition locally and nationally,

b. Coffee Festival, which invites the area around Sukadana to be able to introduce the characteristics of each region. This can increase awareness of coffee business people to be able to reintroduce history which states the best quality is in the Cianjur area.

c. Coffee Harvesting Traditional, can be packaged for traditional coffee harvesting activities for tourists. Where the processing process is traditional without using a machine.

Looking at some of the above, it can be seen that Sukadana is very feasible in being a Rural Destinations, where there is wealth and beauty of nature, the potential of the community can be developed to tourism awareness and from the infrastructure side it already good and can be improved even more. This is one of the factors that causes satisfaction and loyalty of tourists. Based on study of Amelia and Palupi (2016) customers satisfaction significantly influenced domestic tourists' loyalty.

Conclusion

From the research process that has been carried out, there are several things that can be concluded, it is expected:

1. The people in Sukadana are very open to rural destinations development programs. This was indicated by the Village Head and the organization to be able to attend the training and guidance provided. It also needs to be strengthened by the desire and commitment in developing Sukadana into a rural destination.
2. The potential possessed by Sukadana is very huge in being a rural destination, including:
    a. Has abundant natural wealth for agricultural products such as Coffee, Tea, Banana, Bulbs - Tubes, Chili, Tomatoes, Avocados, and many more,
    b. Has natural attractions, such as Cikondang waterfall, Tea Plantation and especially the Gunung Padang Site.

    The natural superiority has not been organized and managed in tourism development. There must be an effort and awareness with the whole community if they want to make Sukadana a rural destination.
3. Stakeholders in this case the Government does not yet fully know and understand in supporting the development plan of Sukadana to become a rural destination.
4. The village community is not ready to become a tourism organizer. This will be supported by holding several trainings related to the development of rural destinations, such as the introduction of the world of tourism, attraction building, homestay management, ways of behaving and communicating to tourists, etc. There needs to be a strong desire and joint commitment in developing into a rural destination.

Limitation of this study and suggestions for future study

1. This research is only conducted from January to March 2019.
2. This study only looks at the potential and problems that exist in Sukadana in the process of developing rural destinations.
3. Further research can begin to carry out training and progress in rural destinations development programs, and see the development of community competencies in Sukadana.
4. Further research can also analyze several factors such as Destination

Attractions, Destination Support Services, People-Related Factors and Destination Attractiveness Measures.

5. Do further research on the origins of the taste and aroma of Sukadana coffee.

REFERENCES

Abdillah, Fitri. (2016). Local Community Involvement and Quality of Life in Tourism Destination Development: Case of Coastal Tourism in West Java, Indonesia. E-Journal of Tourism Vol.3 No.2. pp. 130-139

Amelia, Rizki and Santi Palupi. (2016). The Influence of Services Quality to Domestic Tourists' Loyalty through Domestic Tourists' Satisfaction at Mount Bromo Tourism in East Java Indonesia. E - Journal of Tourism Vol.3. No.2. 81- 87

Breman, Jan (2014). Keuntungan Kolonial dari Kerja Paksa, Sistem Perdagangan dari Tanam Paksa Kopi di JAwa 1720-1870. *Jakarta: Pustaka Obor Indonesia*

Bishop, M. L. (2014). Tourism and environment. In V. Desai & R. B. Potter (Eds.), *The companion to development studies* (Third edit, pp. 374–378). New York: Routledge.

Crouch, G., & Ritchie, B. (1999). Tourism, competitive- ness, and societal prosperity. *Journal of Business Re- search, 44*, 137–152.

Formica, S. (2002). Measuring destination attractiveness: A proposed framework. Journal of American Academy of Business, 1(2), 350–355.

Goeldner, C., Ritchie, B., & McIntosh, R. (2000). *Tourism: Principles, practice and philosophies*. New York: John Wiley and Sons.

Hu, Y., & Ritchie, B. (1993, Fall). Measuring destination attractiveness: A contextual approach. Journal of Travel Research, 25–34.

Kleidas, Minos & Lee Jolliffe (2010). Coffee attraction experiences: A narrative study. *Preliminary Communication Vol.58 No.1*, 61-73

Lasmiyati (2015). Kopi di Priangan Abad XVIII-XIX. *Journal Patanjala, Vol.7 No.2*

Lyon, Sarah (2013). Coffee Tourism and Community Development in Guatemala. *Human Organization, Vol.72 No.3*

Petit, Nicolas (2007). Ethiopia's Coffee Sector: A Bitter or Better Future?. *Journal of Agrarian Change, Vol.7 No.2*, 225-263

Rooseboom, Hans (2014, Aug 22). *The History of Coffee in Indonesia*. Retrieved from http://indonesiaexpat.biz/

Suriadinigrat, Bayu (1982). Sajarah Cianjur Sareng Raden Aria Wiratanu Dalem Cikundul Cianjur. *Jakarta: Rukun Warga Cianjur.*

Swarbrooke, J. (1995). *The development and management of visitor attractions*. Oxford: Butterworth Heinemann.

Vengesayi, Sebastian, et al. (2009). Tourism Destination Attractiveness: Attractions, Facilities, and People as Predictors. *Tourism Analysis, Vol.14*, 6221-636. doi: 10.3727/108354209X125979

Walsh-Heron, J. (1990). *Management of visitor attractions and events*. Englewood Cliffs, NJ: Prentice-Hall.

Yılmaz, B., Acar-Tek, N., & Sözlü, S. (2017). Turkish cultural heritage: a cup of coffee. *Journal of Ethnic Foods*, *4*(4), 213-220.doi:10.1016/j.jef.2017.11.003

E-Journal of Tourism Vol.7. No.1. (2020): 101-113

Spatial-Based Management of Van den Bosch Fortress to Revitalize Historical Assets and Develop Unique Cultural Tourism

Rara Sugiarti, Warto, and Supariadi

Lecturer at the Faculty of Culture Studies Sebelas Maret University, Indonesia
Researcher at Tourism Research Centre (PUSPARI) Sebelas Maret University, Indonesia

Corresponding Author: rarasugiarti@staff.uns.ac.id

ARTICLE INFO

Received
02 February 2020

Accepted
12 March 2020

Available online
31 March 2020

ABSTRACT

Van den Bosch fortress is located in Ngawi East Java Indonesia. The fortress' unique location in the riverbanks of two main rivers of Java island, i.e. Bengawan Solo river and Madiun river, boosts its potentilas as a cultural tourist attraction. The meeting point between these two big rivers has given the fortress opportunities to develop unique tourism package. This study examined the potentials of the fortress, problems for developing the fortress, and the interconnection of spatial distribution of the fortress by employing geographic information system (GIS) to develop spatial-based management of the fortress as an intergrated cultural tourism site. Spatial-based management of the historical resource is aimed at combining and enhancing the urban elements including town square, traditional market, fortress, and rivers as well as some supporting facilities; and it is expected to be able to make Van den Bosch fortress as the center of the attractions. All of the elements of the urban area need to be spatially planned and managed in order to perform a unique tourist attraction in the most enticing historical destination of the region.

Keywords: cultural tourism, fortress, historical asset, spatial-based management.

INTRODUCTION

Historic sites, including fortresses, represent the life of a certain society during a certain era. Fortresses have great potentials to be developed as tourist attractions. Regardless the research findings by Loncarik (2013) mentioning that several fortresses are neglected and are not developed as tourist enticements, many fortresses have undergone this type of development. However, Xie (2006) mentions that despite a great potential to revitalize and develop a historic site stakeholders often encounter problems such as people's inaccurate perceptions,

lack of support from industries, controversial use of facilities, lack of transparency on profit gain, as well as lack of authenticity. These identified problems imply the need of recommendation for future development and management plans.

Fortress is a great asset for the cultural tourism industry. Tourism is a resource industry which depends on the endowment of natural as well as cultural resources including heritage such as fortress. According to the World Tourism Organization, cultural tourism is one of the most promising and fastest growing types of tourism activities in the world. For example, the United States share of cultural tourism is up to 81% of total domestic tours. In European Union this share now makes 24% and according to expert estimates, it will reach 50% of total domestic tours in ten years (Kurbanova & Gazalieva, 2014). Eldin, Fekry & Menchawy (2013) wrote about Abu Qir Fortress and its significant role as a driving force in increasing tourism motivation and developing the community. This is in line with the previous research conducted by Caliskan (2010) which states that socio-cultural heritage may draw tourists to visit an attraction to enjoy entertainment, learn the significance of historic places, and view historic buildings or ruins of buildings. However, fortress tourism has not been able to be developed to its maximum potential because of poor management, limited facilities, and the lack of attractive activities for tourists (Loncarik (2013).

According to Ansari, Mahdavinejad & Abedi (2012) tourists visit historic or cultural sites for a variety of reasons which vary from seeking authentic cultural experiences to simply following the tour itinerary set up by the operator. Furthermore, Ballesteros & Ramirez (2007) mentions that to develop heritage tourism there should be a step to convert the existing heritage into a tourism resource. Conversion of heritage into tourism resource has the potentials to create job opportunities, boost local economy, and improve commmunity welfare (Ismail, 2014).

Indonesia has diverse heritages representing the cultural wealth of the nation in the past. Indonesian history can be traced and learned from the heritages. One of them is fortress which performs the course of history of the Indonesians' life up to the present time. Indonesian fortresses were built by the Dutch Colonial Government during their colonial era in Indonesia. Therefore, fortresses have a close relationship with the long history of the Ducth colonial era in Indonesia for 350 years (Rukmana, 2015). Based on the historical record there are 459 fortresses

spread in Indonesia, 303 of which are found in Sumatera, 159 in Java, 134 in Sulawesi, 12 in Bali-NTB-NTT, and 9 in Kalimantan. However, only 177 fortresses can be identified (GRAC, 2012). Fortress represents high spirit of the nation (Indonesian) to fight the colonizer, get rid of them, force them to leave the country, and get freedom from the colonial government.

Van den Bosch Fortress is one of the fortresses found in Indonesia. The existence of the fortress has given alternative choices for tourists visiting the region. This study aims to examine the potentials of Van den Bosch Fortress, the problems to develop the fortress, and the planning and management of the fortress seen from all of its internal parts as well as its connection with all of the town elements including traditional market, town square, rivers, hotels, restaurants, and travel agents.

RESEARCH METHODS

Data

Van Den Bosch Fortress is located in Ngawi East Java Indonesia. It took six years to build the fortress, from 1839 to 1845. The name Van den Bosch was taken from the name of Governor General Van den Bosch who was in charge of governing Indonesia during the Dutch colonial era. Van den Bosch Fortress has been open to public since 2011. Previously it was only for military use. People are now allowed to visit the site for tourism and recreational purposes. Tourists visiting the site can enjoy various attractions including the colonial building and green scenery in its surroundings. Several archaeological remains were found in the site, including fragments of earthenware, metal fragments, glass fragments, fragments of bone, and fragments of shells (Chawari, 2016). As a historic place Van den Bosch Fortress is protected by Law (Act No. 11/ 2000) about Cultural Heritage. According to the Law the Indonesian Government and all people can use the cultural heritage for religious, social, educational, scientific, technological, cultural, and tourism purposes.

The area consists of several parts including moat, dyke, drawbridge, residential area (house of governor), office room, kitchen, prison, ammunition storeroom, meeting room, sauna bathroom, fortress well, stage, swimming pool, and drainage. Table 1 mention parts of the physical building in the area of Van den Bosch Fortress as well their location and function.

Table 1. Physical Components of Van den Bosch Fortress.

No.	Components	Location	Function
1.	Moat	Surrounding the fortress	Security, defense
2.	Dyke	Surrounding the fortress	Security, defense
3.	Drawbridge	Across the moat in front of the main gate	Security, defense
4.	House of Governor General Van den Bosch	At the center of the fortress' right wing	Residence of Governor General Van den Bosch
5.	Office Rooms	At the center of the fortress' left wing	Carrying out administrations
6.	Kitchens	Behind the house of Governor General Van den Bosch	Provision of logistics
7.	Prison	At every corner of the fortress (under every staircases)	Carrying out punishments
8.	Ammunition Storeroom/Powder Magazine	On the left wing of the fortress (at the front and back)	Ammunition storage
9.	Communal Baths	On the right wing of the fortress (at the front and the back)	Bathing area
10.	Meeting Room	On the left wing of the fortress (at the front)	Carrying out meetings
11.	Sauna Bath	At the back of the fortress' right wing	Sauna bathing area for Governor General Van den Bosch
12.	Fortress Well	Behind the Office Rooms	Water source
13.	Stage/Platform	In front of the fortress	Entertainment and recreation area
14.	Swimming Pool	In front of the Stage	Recreation area
15.	Swimming Pool Drainage	Near the pool	Pool water disposal system which ends in Bengawan Solo River

Source: Researchers' Interview & Observation, 2017.

The location of Van den Bosch Fortress is in the meeting point between Bengawan Solo river and Madiun river. It is also close to the other elements of the town including traditional market, town square, and government office complex (See Figure 1).

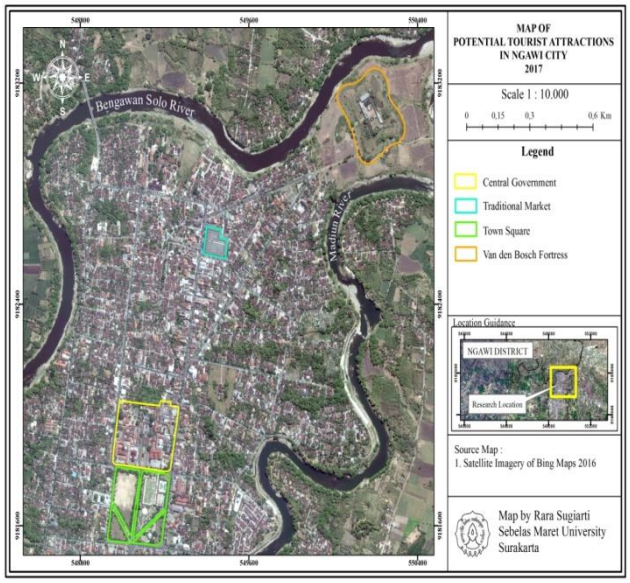


Figure 1. Map of Tourist Attractions of Ngawi City.

Methods

This research was carried out in Ngawi East Java Indonesia where Van den Bosch Fortress is located. The research employed spatial analysis which emphasizes the process of turning raw data into useful information with the objective of solving scientific or decision making problems (Goodchild, 2016). It was conducted by collecting spatial data concerning urban elements found in the town, especially the fortress, town square, traditional market, and rivers which are

spatially distributed in Ngawi by employing Geographic Information System (GIS). The results of the GIS-based mapping was utilized to describe the overall picture of Van den Bosch Fortress including its potentials, problems, and spatial constellation in the region. The spatial data were analyzed by studying all aspects of tourism facilities which support the enhancement of heritage and cultural attractions found in the area.

This study is a descriptive research referring to an objective representation of a historic site in Ngawi which is under investigation. This research made use of qualitative data obtained from two different sources including primary and secondary data sources. Primary data sources consisted of observation and semi-structured interview which was utilized to acquire the key informants' and the tourists' perceptions, attitudes, and experiences on their visit to Van den Bosch Fortress. It was aimed at acquiring a first hand view of Van den Bosch Fortress and obtaining a deeper understanding about the place, people, and culture found in the area. The study involved managers, visitors, and government officials of the Ngawi Regency, especially the office of Tourism, Youth and Sports. The second was secondary data sources which consist of previous studies and government documents on Van den Bosch Fortress development. Since the research does not make any generalization from samples to population, the method applied is relevant. In this type of research quality of data in the form of useful information obtained from key informants is more important than representativeness of samples (de Vaus, 1995).

The research also employed interactive analysis to look at the management of Van den Bosch fortress. There are three important steps in the analysis including data reduction, data display, and conclusion drawing (Miles & Hubermann, 1984). In the first step all data concerning the potentials and problems of Van den Bosch Fortress management were collected and reduced by selecting the appropriate data. Secondly, the data were displayed in various forms such as maps, tables, graphs, or charts to facilitate the whole process of the analysis. Finally, based on data which were collected, reduced, and displayed, a conclusion was made to perform the results of the analysis about Van den Bosch Fortress management.

RESULTS AND DISCUSSION

The Potentials of Van den Bosch Fortress as a part of the town vital assets

Van den Bosch Fortress is one of the few fortresses in Indonesia which still maintains its physical buildings. Although many parts of the fortress are damaged, its original features can still be clearly seen from the ruins. Some researches mention that ruins of several historic buildings become famous tourist attractions (Ansari, 2012; Carisson & Walden, 2010; Mansyur, 2008).

Van den Bosch Fortress is a part of the town vital assets. There are several places which support the development of Van den Bosch Fortress as a tourist attraction. Some of them are traditional market and town square. Several facilities including hotels, restaurants, travel agents, mosques, hospitals, banks also serve as essential parts of tourism development (Kurbanova, A.M. & Gazalieva, N.I., 2014). In the context of tourism management, all of them function to create a high level of tourist satisfaction. Moreover, their presence can enhance the develeopment of tourism in Van den Bosch Fortress.

Besides its function to foster educational tourism by providing a lesson on the nation's history of patriotism, the fortress has a great potential to be developed in the context of other special interest tourism, specifically historical and cultural tourism. Goyal (2014) mentioned that educational tourism is a way to give the best education to students across the globe. Moreover, Kuo (2002) argued that promoting adequate understanding through tourism interpretation of the attraction to visitors is essential in developing educational tourism. Therefore, developing Van den Bosch Fortress as educational tourism site needs to be equipped with adequate interpretation services. Interpretation is a way of providing tourists with explanation about the site they visit in order that they know, understand, appreciate, and take part in conserving the resources (Kuo, 2002).

The geographical location of Van den Bosch Fortress serves as one of its most unique features. It was conveniently built near the confluence of Bengawan Solo River and Madiun River to defend the territory and oversee the river trade routes. Furthermore, its location offers attractive prospects for the development of unique water-based tourism activities such as canoeing, during which a guide will be giving explanation about the correlation between the rivers and the fortress itself, providing tourists with a high quality interpretation. Efforts in developing such attractions which go in line with tourist

motivation have been explored in the work of Dunkley, Morgan & Westwood (2011) on fortress tourism. They present the importance of thoroughly recognizing the purpose of an attraction and knowing what motivates tourists to visit the destination. The availability of a destination's newest offers and services greatly influence tourist motivation.

Another potential attraction that can be exploited from Van den Bosch Fortress is the burial site of K. H. Muhammad Nursalim, a local Islamic figure who was a follower of Pangeran Diponegoro, a national hero who fought against the Colonial Dutch in Ngawi and the surrounding areas. Nursalim's story—buried alive because no weapons could kill him—serves as intriguing information for tourists that also portrays the locals' patriotism during the times of war. This local wisdom creates a unique value for the fortress. Kurbanova & Gazalieva (2014) mentioned that the uniqueness of a tourist attraction plays a big role in attracting visitors. Besides, it creates a high level of tourist experience (Kurniawan, 2015; Ismail, 2014; Loncarik, 2013).

Problems of Managing and Developing Van den Bosch Fortress

Many fortresses across the globe face similar issues in their management and development. Van den Bosch Fortress is one of them. A research by Garača, Jovanovic & Pejovic (2011) presented the issues faced by Petrovaradin Fortress, namely how to design a suitable spatial planning as well as how to manage and develop the area to the maximum extent. In the case of Van den Bosch Fortress, there are some problems regarding assets management, authority of management, low quality of human resources, and lack of knowledge of best practice tourism management. Stanojlovic, Ivkov-Dzigurski & Dragin (2010) underlined the lack of tourism interpretation in fortress tourism. Besides, assets and authority issues are also a complicated matter and still remain unresolved despite the many discussions involving local and national stakeholders. Consequently, these issues hamper the management and development of the fortress.

Low quality of human resources is also problematic since sufficient basic knowledge about the fortress architecture, political roles, and the fortress history is required to develop a better management. Human resource competence in providing interpretation plays a significant role (Kuo, 2002). This is because the biggest

challenge in historic tourism lies in the ability to reconstruct the past in the present through interpretation. Interpretation does not only explain historic facts but also provide understanding about places, creates emotional response, and increases enjoyment, appreciation, and awareness (Stanojlovic, Ivkov-Dzigurski & Dragin, 2010). It functions as a means of enhancing cross-cultural understanding, improving the quality of tourist experience, and performing effective management and conservation of the heritage sites (Garaca, Jovanovic & Pejovic, 2011; Kuo, 2002). The lack of interpretation of Van den Bosch Fortress reduces the appreciation of visitors on the historic resource.

Van den Bosch Fortress is now in the phase of development planning. The planning concept includes spatial planning for the historic and cultural resources. Spatial planning is an important aspect of tourism development that corresponds with visitor and attractions management (Nahuelhual, et.al, 2013; Mirsanjari, 2012; Gunn, 1994). Lack of planning often results in lack of sufficient management, including management of attractions as well as management of visitors (Nahuelhual, Carmona, Lozada, Jaramillo & Mauricio, 2013; Maksin & Milijic, 2010). The planning concept for Van den Bosch Fortress development is done on collaboration among stakeholders including Ngawi Tourism Office, East Java Office of Archeology, and Yogyakarta Office of Archeology.

Developing Van den Bosch Fortress for special interest tourism destination requires holistic planning, including planning to utilize the spaces. A previous research by Garača, Jovanovic & Pejovic (2011) on fortress tourism highlights the role of spatial planning in developing Petrovaradin fortress as a tourist attraction by determining its central functions and dividing its spatial entities. The development and management of fortress tourism activities will become easier and more effective with a suitable spatial planning. The importance of spatial planning conception in fortress tourism management is also present in the work of Rukmana (2012), where the various functions of the rooms of Vredeburg Fortress in Yogyakarta Indonesia are underlined. One of them functions as a museum, an attraction that is expected to meet the newest trends of tourism in the way that it is no longer just a place to store items with historical, scientific, artistic, or cultural values, but also a place which holds recreation and educational functions.

Spatial management and development of fortresses as a tourist attraction also requires supporting digital services which also act as mobile tourist

guide. Carisson & Walden (2010) underlined how the use of mobile tourist guide of Bomarsund Fortress is very helpful in promoting the offered tourist attractions, its history, as well as its physical structure and layout.

Even though the number of tourists visiting Van den Bosch Fortress is still limited, the management needs to think about its carrying capacity. This is because spatial management of a fortress must take the location's carrying capacity into consideration. Jovicic & Dragin (2008) mentioned that applying the concept of carrying capacity allows management to effectively and efficiently estimate the suitable level and direction of change that tourism will bring to the area.

Another problem is the lack of promotion for Van den Bosch Fortress. Since promotion plays an important role to draw tourists, the lack of promotion often results in public's ignorance. Adequate and responsible promotion is also a key factor behind the management and development of fortress tourism (Kurbanova & Gazalieva, 2014).

Currently, the use of Van den Bosch fortress as learning sources and character building media is still limited. This is different from other fortressess such as Vredeburg fortress in Yogyakarta and Van Der Wijck fortress in Kebumen Centra Java. A study by Kurniawan (2015) noted the shift in the role of Van Der Wijck Fortress to become media for educating students and visitors about history. Fortresses are a great source of education, which calls for proper maintenance and conservation of their physical aspects. This is in line with a research undertaken by Marina, Muntean & Stefani (2009) which underlined the important role of Alba Iulia Fortress as a means of teaching history to students. Fortresses have the significant role in educating visitors.

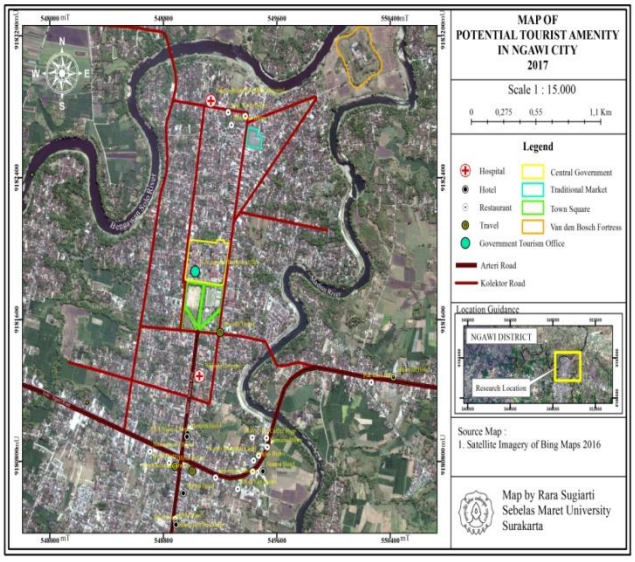


Figure 2: Map of Tourist Attractions and Amenities of Ngawi City.

Spatial Based Management of Van den Bosch Fortress

The management of Van den Bosch Fortress should be viewed from two aspects: internal management, which manages the physical construction of the fortress and all its internal aspects, and external management, which manages the

fortress as a part of a bigger system, namely the spatial plan of Ngawi Regency. Previous studies mention that a tourist attraction cannot survive without creating synergy with its surrounding facilities; therefore considering the external factors is crucial (Garača, Jovanovic & Pejovic, 2011; Marina, 2009).

Internal Management

Internal management covers the spatial management of the inner scope of the fortress, such as its facilities and physical architecture. It is aimed at optimizing its role in the educational context, specifically a lesson on the history of national patriotism intended to build character in Indonesia's young generation. Current management of Van den Bosch Fortress is still focused on physical features such as providing trash bins and outdoor ornaments placed at the corners of the structure. It is clear that the situation is not optimal, considering also the lack of management for non-physical aspects such as tourism interpretation of the fortress. This is problematic since interpretation is a means of providing visitors with information and knowledge about the attraction they are enjoying in order that they can appreciate it (Dzigurski & Dragin, 2010; Kuo, 2002).

External Management

External management is based on the need to create synergy with other components of the city that supports the development of a tourism package in which Van den Bosch Fortress is the core attraction. These supporting components are Pasar Besar Ngawi (a traditional marketplace), Alun-alun Merdeka Ngawi (town square), as well as Bengawan Solo and Madiun Rivers. Pasar Besar Ngawi provides souvenirs and local specialties of the town, specifically *jajanan pasar* (street food) and snacks. Alun-alun Merdeka Ngawi is strategically located at the heart of the town, about one kilometer away from the fortress, where a culinary center is built to promote various food and drinks from Ngawi. A management that is based on the fortress' interconnectivity with the town's other facilities has not been applied in developing this tourism package, even though according to Dede & Ayten (2012), it is an essential aspect in the spatial management and planning of a tourism asset.

CONCLUSION

Van den Bosch fortress has the potentials to be developed as unique cultural tourist attraction. It is a historical monument of great importance which has diverse attractive historic parts including

the main building of the fortress, the main yards, and the environment surrounding the fortress building. In order to revitalize the fortress it needs to be well managed for a wider function including function for sustaining the resource, educational function, ecological function, and economic function. This is in line with the results of some previous researches conducted by Kurbanova & Gazalieva (2014) and Marina, et.al (2009) which highlighted multifunction of fortresses.

Apart from the abundant potentials of Van den Bosch Fortress, there are still limited development actions due to several problems including the lack of management planning. This has resulted in the absence of appropriate management for the resource. Besides, it has caused the following problems such as lack of promotion and lack of professional human resources. This conclusion supports the findings of research by Garaca, Jovanovic & Pejovic (2011) which highlighted the importance of tourism spatial based management and design for developing cultural tourism. Another problem is limited facilities provided in the fortress, including interpretation facility which is useful to give adequate educational messages and information to create a better understanding about the fortress and enhance visitors' appreciation.

Spatial based management is one of solutions to several problems of Van den Bosch Fortress tourism development. This supports the research undertaken by Dede & Ayten (2012) and Garaca, Jovanovic & Pejovic (2011) concerning spatial planning for better management. Revitalization of Van den Bosch Fortress, which is focused on planning the rehabilitation of the physical building of the fortress, has been initiated by the local government. Furthermore, the revitalization of the fortress needs to be supported by empowering best practice management of all related resources including human resources, urban resources, and natural resources.

ACKNOWLEDGEMENT

This work was supported by the Directorate of Research and Community Service, Directorate General of Research and Development, Ministry of Research, Technology, and Higher Education of the Republic of Indonesia (Grant No. 098/SP2H/LT/DRPM/IV/2017).

REFERENCES

Ansari, M., Mahdavinejad, M. & Abedi, M., 2012, The Role of Historic and Heritage Wealth in Sustainable Tourism Development, Asian Journal of Social Sciences and Humanities Vol. 1(3), pp. 70-77.

Ballesteros, E. R. & Ramirez, M.H., 2007, Identity and Community – Reflections on the Development of Mining Heritage Tourism in Southern Spain, Tourism Management Vol. 28, pp. 677-687.

Caliskan, V., 2010, Examining cultural tourism attractions for foreign visitors: the case of Camel Wrestling in Selcuk (Ephesus), Turizam Vol. 14(1), pp. 22-40.

Carisson, C. & Walden, P., 2010, Supporting tourists at the Bomarsund Fortress with a mobile value service, Journal of Information Technology Theory and Application Vol. 11 (1), pp. 43-56.

Chawari, M., 2016, Benteng Van den Bosch, Ngawi: Temuan artefaktual sebagai cerminan alat-alat kebutuhan sehari-hari, Arkeologi Vol. 36(2), pp. 195-210.

Dinca, Iulian, et.al, 2010, Touristic culture through identification of the visitor with events and natural and built patrimony of some fortresses from Romania, (Proceedings of the 5th WSEAS International Conference on Economy and Management Transformation Vol. I. Romania: University of Oradea (Department of Geography, Toruism, and Territorial Planning).

Dede, O.M. & Ayten, A.M. (2012). The Role of spatial planning for sustainable tourism development: a theoritical model for Turkey. Tourism, 60(4), 431–444.

de Vaus, D.A. (1995). Survey in Social Research (4th ed.). New South Wales: Ellen & Unwin.

Dunkley, R., Morgan N. & Westwood, S., 2011, Visiting the trenches: Exploring meanings and motivations in battlefield tourism, Tourism Management Vol. 32, pp. 860-868.

Eldin, S. S., Fekry, F. & Menchawy, A. E., 2013, Abu Qir Fortresses as Vital Assets for Tourism Motivation and Community Development, Journal of Heritage Conservation Vol. 34, pp. 48-55.

Garaca, Jovanovic & Pejovic, 2011, Petrovaradin Fortress (Novi Sad, Serbia): Tourism Spatial Planning and Design of The Upper Town for the Function of Cultural Tourism, Turizam Vol. 15: 2, pp. 65-76.

Goodchild, M.F. & Longley, P.A. (13 July 2016). Citing Internet sources URL http://www.csiss.org/gispopsci/workshops/2005/PSU/docs/goodchild_future.pdf.

Goyal, 2014, Educational Tourism: Analyzing the Global Trends, Asia Pacific Journal of Research Vol. I: XVIV, pp. 178-183.

GRAC, 2013, Daftar benteng di Indonesia: Wisata benteng (Menelusuri sejarah benteng di bumi nusantara).

Ismail, N., Masron, T. & Ahmad, A., 2014, Cultural Heritage Tourism in Malaysia: Issues and Challenges, SHS Web of Conference 12, doi: 10.1051/shsconf/20141201059

Jovicic, D. & Dragin, A., 2008, The Assessment of carrying capacity – a crucial tool for managing tourism effects in tourist destinations, Turizam Vol. 12, pp. 4-11.

Kuo, I-Ling, 2002, The Effectiveness of environmental interpretation at resource-sensitive tourism destinations. International Journal of Tourism Research, 4, pp. 87-101.

Kurbanova, A.M. & Gazalieva, N.I., 2014, Historical and cultural site of educaional tourism in Derbent City, World Applied Sciences Journal 30 (Management, Economics, Technologies & Tourism), pp. 224-226. DOI: 10.5829/idosi.wasj.2014.30.mett.44

Kurniawan, Novan Abdi & Gunaan Sridiatmoko, 2015, Pemanfaatan Benteng Van der Wijck Gombong Kabupaten Kebumen Jawa Tengah sebagai sumber belajar dan objek pariwisata pendidikan, Yogyakarta: Universitas PGRI.

Loncarik, Buijana, 2013, Restoration of the Brod Fortress by the EU Funds, Croatia: Tourist Board Slavonski Brod.

Maksin, M. & Milijic, S. (2010). Strategic planning for sustainable spatial, landscape and tourism development in Serbia. Spatium, 23, 30–37. DOI: 10.2298/SPAT10230M

Mansyur, S., 2008, Pengelolaan sumber daya arkeologi untuk pariwisata berkelanjutan, Kapata Arkeologi (Edisi Khusus Mei 2008), Ambon: Balai Arkeologi.

Marina, Lucian, Andreaa Muntean & Claudiu Stefani, 2009, Development directions for the tourism offer of the Alba Iulia Fortress. Qualitative assessment. Annales Univesitatis Apulensis Series Oeconomica, Vol. 11 No. 2, 1041-1046.

Miles & Huberman (1984) Miles, M. B. & Huberman, A. M, 1984, Qualitative Data Analysis: A Sourcebook of New Methods. London: Sage Publications.

Mirsanjari, M. (2012). Importance of environmental ecotourism planning for sustainable development. International Journal of Sustainable Development, 4(2), 85–92.

Nahuelhual, L., Carmona, A., Lozada, P., Jaramillo, A. & Mauricio. (2013). Mapping recreation and ecotourism as a cultural ecosystem service: an application at the local level in Southern Chile. Applied Geography, 40, 71–82.

Petroman, I., Petroman, C., Marin, D., Ciolac, R., Vaduva, L. & Pandur, I., Types of cultural tourism, Animal Science and Biotechnologies Vol. 46(1), pp. 385-388.

Rukmana, Indra, 2015, Strategi pengelolaan museum benteng Vredeburg sebagai daya tarik wisata warisan budaya di Yogyakarta, Yogyakarta: ISI (Thesis).

Stanojlovic, A., Ivkov-Dzigurski, A. & Dragin, A., 2010, The Lack of Interpretation at Fortresses along the Danube in Serbia, Geographica Timisiensis Vol. 19(2), pp. 185-196).

Xie, P. F., 2006, Developing Industrial Heritage Tourism: A Case Study of the Proposed Jeep Museum in Toledo, Ohio, Tourism Management Vol. 27, pp. 1321-1330. doi: 10.1016/j.tourman.2005.06.010

E-Journal of Tourism Vol.7. No.1. (2020): 114-125

Loyalty of Green Tourist : Mediating Role of Satisfaction

Nining Yuniati[1], Sony Heru Priyanto[2], Lieli Suharti[3], and Linda Kusuma[4]

[1]Sekolah Tinggi Pariwisata Ambarrukmo (STIPRAM)
[2,3,4]Universitas Kristen Satya Wacana (UKSW)

Corresponding Author: niningyuniati@gmail.com

ARTICLE INFO

Received
12 February 2020

Accepted
12 March 2020

Available online
31 March 2020

ABSTRACT

The paper aims to test a research model of the mediating role of satisfaction in creating loyalty of green tourists. The importance of loyalty refers to a number of unique characteristics of green tourists such as being associated with the middle class, high spenders, staying longer than common tourists, high involvement, and tolerance. By using SEM a mediation test was carried out related to the position of customer satisfaction (GCS) in mediating its decision to buy in an environmentally friendly hotel (GP) and its loyalty (GCL). In short, to get loyal customers, services must be created in order to encourage customer satisfaction.

Keywords: green hotel, green tourist, loyalty, purchasing, satisfaction

INTRODUCTION

Green tourists are tourists who have a high awareness of being environmentally friendly. In a study of 'new tourism' (Cecilia, Elizabeta, & Magdalena, 2011) green tourists usually a part of new tourists who embrace 'environmentalism' who have a high awareness of the impact of their behavior on the environment. The characteristic of green tourists included prefer to choose products that are environmentally friendly, sensitive and respectful of local culture, caring, enthusiastic in seeking new experiences, a participators rather than spectators (Lee, Tzang, Han, & Kim, 2010). This group is also characterized by middle class social status, high spending ability, longer length of stay, and higher education (Balderjahn, 1988; Larson & Khan, 2011). Their lifestyle leads to environmentally friendly consumption behavior (Gao & Mattila, 2015) also well known as green consumer (Larson & Khan, 2011). In theory of green marketing

knows as a consumer who bought eco-labels product due to their awareness about the environment (Wolok, 2019).

Green tourists usually have a mature consideration in deciding to buy a product, because of their awareness of all risks due to these actions (Joshi & Rahman, 2015). Similarly, in choosing accommodation to stay. The decision to choose a hotel has probably been very well considered. There are at least three indicators of green purchasing decisions made by green tourists. Firstly intention to pay as conventional hotel prices, this indicator is a bargain from consumers towards environmentally friendly hotels to get services and satisfaction as good as conventional hotels (Gao & Mattila, 2015). According to consumers' perceptions, conventional hotels are generally considered 'better' compared to green hotels in terms of comfort, price, facilities, and services (Berezan, Millar, & Raab, 2014; Chang & Fong, 2010; Gao & Mattila, 2015; Kubickova, Nusari, Parsa, & Hu, 2014; Larson & Khan, 2011; Young, Hwang, Donald, & Oates, 2010). Second, the perceived of effectiveness of green behavior, according to this is a form of high consumer awareness of the environment. Consumers have perception that their actions are a part of solution to environmental problems. Third, self-affirmation which expressly rejects the perception that environmentally friendly products are inferior, premium prices, and recycled (Chan & Chan, 2013; Johri & Sahasakmontri, 2016; Kusliwal & Agarwal, 2015; Yu, Li, & Jai, 2017). Self-affirmation is a kind of consumer's integrity that responsibility to the environment is more important than product characteristics itself. It is possible that a number of other factors may have an influence such as social factors, psychological factors, and situational factors (Dewi, Adhianata, & Suwignyo, 2018).

Green tourists also have a number of preferences related to the expected service especially when choosing an accommodation. A study conducted by Bastic dan Gojcic (2012) and Berezan et al. (2014) revealed that there are at least three service indicators that can satisfy green tourists, firstly green attributes which include the interior and exterior of hotel attributes; desirable facilities and hotel atmosphere, efficient use of electricity, water and a number of green actions. Second, eco staff behavior means the capacity and capabilities of hotel employees related to green behavior. In relation of the role of staff to the consumer satisfaction is also ever being empirically examined by Sundaraju, Kee, Lopez, Balakrishnan, and Sagadevan (2019) and Wisker and Kwiatek (2018). Third, the

availability of healthy food in each food menu. All of these are part of customer satisfaction services which considered able to improve customer loyalty (Anita, 2019).

However, the number of studies related to green tourist behavior mostly examines the factors that influence decisions. Research related to efforts to make green tourists into loyal tourists has rarely found. It is a mistake if the green tourist then not treated to be a loyal consumer even if it counts a small amount. The characteristics of green tourists are the main reason why then came a thought how to make these green tourists become loyal consumers. This study has an attempt to test a model how to create loyalty for green tourist, especially for those who stay at green hotels by looking at opportunities for the role of dimensions in the services provided to ensure tourist satisfaction.

HYPOTHESES DEVELOPMENT AND RESEARCH METHOD

A number of research revealed that loyalty close relationship with satisfaction (Ganiyu, 2017; Kheng, Mahamad, Ramayah, & Mosahab, 2010; Mohsan, Nawaz, Khan, Shaukat, & Aslam, 2011; R.A.Ganiyu, I. Ikechuwku, & A.O. Elizabeth, 2012; Saleem & Raja, 2014). According to Asgharian, Saleh, Saleki, Hojabri, and Nikkhesiat (2012) there is direct relationship between product quality and consumer loyalty. Same opinion also stated by Srivastava (2015) that customer satisfaction will influence to loyalty by some moderating factors. Green customer loyalty is a loyal attitude towards a company brand that cares about the environment, it makes consumers have an emotional bond with the product and wants to always use the same product in the future (Chang & Fong, 2010). Consumers who feel satisfied tend to be loyal (Orie Berezan, Carola Raab, Michelle Yoo, & Love, 2013).

Regarding to those statements, there are two hypotheses can be proposed. Firstly, a green tourist who has decision to stay at green hotel (GP) is a loyal customer. Secondly, consumer who has satisfaction on a number of service dimensions (GCS) will encourage loyalty (GCS). The two hypotheses can be formulated as follows:

H1 : Green purchasing of green tourist effect to green customer loyalty

H2 : Green Customer Satisfaction is mediating variable between green purchasing and green customer loyalty

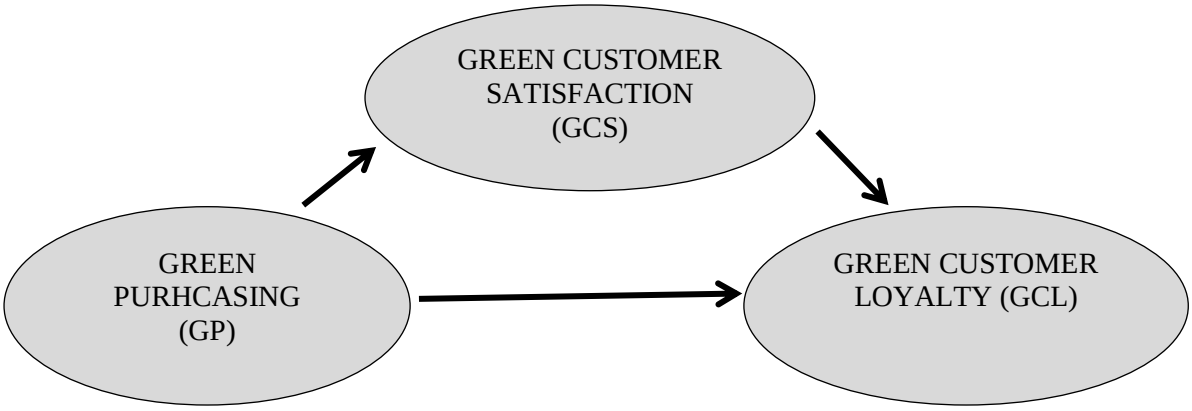


Figure 1. Theoretical Concept

This research using 296 respondents as samples. This amount is the questionnaire returned and filled out. According to (Hair, Black, babin, & Anderson, 2014) and Tabachnick and Fidell (2013) for the number of samples in the range of 100 - 350 samples, the estimation technique approach used is maximum likelihood estimation. The sample are tourists who stay in a green hotel, they were later described in this study as green tourists. For a more in-depth analysis, this study selects tourists who have chosen green hotels which are officially certified by the government. Research location is Yogyakarta that has been known as one of the most popular tourist destinations in Indonesia.

Before the questionnaire was distributed the validity of 30 respondents had been tested and no significant problems were found, so the instrument was considered able to explain the problem then the survey was continued. The instrument used was a questionnaire with questions that could be chosen on a scale of 1-5 where 1 was Strongly Disagree and 5 was Strongly Agree. The analysis technique used is Structured Equation Modeling (SEM), one of the multivariate analyzes that can analyze relationships complex variable.

The Analysis was done by AMOS version 24. Operational variables consist of Green Purchasing (GP) with 3 Indicators, the dimension of Green Customer Satisfaction (GCS) consists of 9 indicators, and the intention of loyalty or Green Customer Loyalty (GCL) consist of 5 indicators as written in Table 1.

Table 1. Operational Variables

Variable Green Purchasing (GP)
1. Value perception; it is acceptable to pay conventional hotel prices for green hotel 2. Perceived of effectiveness i.e when buy this product means try to consider how the use of them will affect the environment () 3. Self-affirmation i.e prefer to choose the product which less pollution
Variable Green Customer Satisfaction (GCS)
1. Feeling satisfied because hotel using eco-friendly attribute into both exterior and interior 2. Feeling satisfied because the atmosphere of a hotel is preferable (lighting, air circulation) 3. Feeling satisfied because hotel practiced efficiency in using energy in water and electricity 4. Feeling satisfied because hotel encourages guests to participate in green action (re-use towels, bed linen, refillable shampoo) 5. Feeling satisfied because employees encourage the guests about green attitude while staying in the hotel 6. Employees are responsive to the guest 7. Feeling satisfied because employees have good knowledge about green behavior 8. Feeling satisfied because hotel providing healthy food 9. Feeling satisfied because hotel provide Bio menu in all the menus offered by hotel
Variable Green Customer Loyalty (GCL))
1. It is acceptable to pay more to stay at a hotel that engages green practices 2. Willingness to re-visit, plan to stay at a green hotel again when travelling 3. Willingness to recommend by encourage friends and relatives to stay at green hotel 4. Plan to give testimonial over the social media regarding to the experience 5. Always try to seek a lot of information about green hotel while travelling

.

RESULTS AND DISCUSSION

Knowing consumer loyalty is very important regarding the complicated consumer decision to buy green product (Joshi & Rahman, 2015; Yu et al., 2017). Research on consumer loyalty of green hotel particularly has never been found, but the concept of green customer loyalty can be shown from a number of attitudes such as willingness to pay more (Dimara, Manganari, & Skuras, 2015; Manaktola & Jauhari, 2007) willingness to re-visit (Kubickova et al., 2014), and willingness to recommend to other consumers (Kubickova et al., 2014; Lee et al., 2010) which also tested in this paper.

The concept of loyalty from green tourist can be related to the green customer loyalty research that was first empirically examined by Chang and Fong (2010) in his research on green product and the consumer in Taiwan. It is not specifically mention what kind of product that examined. Other research conduct by Chen (2013) which examines about consumer loyalty to green electronic products. Both of studies discussed the object of manufactured products. The concept that can be captured from those studies is that there is a loyal intention of consumers to buy back and continue to use the product even if the price tag is more expensive than the common product.

This research has the aim of testing the role of customer satisfaction in improving customer loyalty of green hotels. Based on testing results the overall validity and reliability test results are valid and reliable. According to Taherdoost (2016) the data said to be valid if value standardized regression weight > 0,5 and the result of the calculation of all latent variables can meet the criteria construct reliability and variance extracted with all value of indicator > 0,5 so it was concluded that the indicators observed could reflect the analyzed factors and together could reflect an unidimensionality (see Table 2).

Table 2. The Result of Validity and Reliability Test (*N* = 296)

Variables; Indicators			Estimate
GCS	<---	GP	,636
GCL	<---	GCS	,702
GCL	<---	GP	,078
GP1	<---	GP	,802
GP2	<---	GP	,737
GP3	<---	GP	,797
GCS1	<---	GCS	,850
GCS2	<---	GCS	,810
GCS3	<---	GCS	,779
GCS4	<---	GCS	,837
GCS5	<---	GCS	,847
GCS6	<---	GCS	,837
GCS7	<---	GCS	,867
GCS8	<---	GCS	,840
GCS9	<---	GCS	,838
GCL1	<---	GCL	,811
GCL2	<---	GCL	,831
GCL3	<---	GCL	,807
GCL4	<---	GCL	,843
GCL5	<---	GCL	,848

The next step is to know the normality of the data estimated by Maximum Likelihood. The assumption of normal data requires that the observed variable must meet the multivariate normality assumption and can be done by observing a multivariate CR value of ± 2.58 at a significance of 1%. Normality test result (see table 3) show that the CR value for multivariate is -0.08 or in the range - 2.58 to 2.58 at a significance level of 1%, so it can be concluded that the data are normally distributed (see Table 3).

Table 3. Assessment of Normality (*N* = 296)

Vari-able	Min	Max	Skew	C.R.	Kurto sis	C.R.
GCL5	1,000	5,000	-,344	-2,792	-,070	-,283
GCL4	1,000	5,000	-,380	-3,085	-,019	-,077
GCL3	1,000	5,000	-,369	-2,996	-,130	-,528
GCL2	1,000	5,000	-,335	-2,724	-,092	-,374
GCL1	1,000	5,000	-,551	-4,477	,221	,896
GCS9	1,000	5,000	-,408	-3,314	-,202	-,823
GCS8	1,000	5,000	-,322	-2,615	-,325	-1,321
GCS7	1,000	5,000	-,551	-4,477	,053	,214
GCS6	1,000	5,000	-,456	-3,707	,138	,560
GCS5	2,000	5,000	-,273	-2,215	-,629	-2,554
GCS4	1,000	5,000	-,445	-3,612	,156	,632
GCS3	1,000	5,000	-,421	-3,424	-,044	-,177
GCS2	1,000	5,000	-,454	-3,689	,222	,901
GCS1	1,000	5,000	-,310	-2,515	-,418	-1,700
GP3	2,000	5,000	-,190	-1,546	-,664	-2,698
GP2	1,000	5,000	-,396	-3,213	,046	,189
GP1	1,000	5,000	-,279	-2,263	-,103	-,420
Multiva riate					-,020	-,008

Note. C.R = Critical Ratio.

Table 4. Goodness of Fit Test Results for The Model (*N* = 296)

Goodness of fit index	Cut off Value	Result	Evaluation Model
Chi Square (df = 67)	Small (< 605,666)	3038,474	Fit
Probability	≥ 0,05	0,000	Fit
CMIN/DF	≤ 2,00	2.082	Fit
GFI	≥ 0,90	0,934	Fit
AGFI	≥ 0,90	0,913	Fit
TLI	≥ 0,95	0,972	Fit
CFI	≥ 0,95	0.976	Fit
RMSEA	≤ 0,08	0,052	Marginal

Sig. 5%

The results of the Inter-Variable Influence Test (see table 5), all variables and indicators show a significant influence except in GP to GCL where the purchase decision has no direct effect on loyalty (P value = 0.171 above the normal value 0.05). It is answered H1 that the green tourist has decided to stay at a green hotel is a loyal consumer, this opinion cannot be proven so H1 is rejected.

Furthermore, consumer decision (GP) has an effect on the dimensions of consumer satisfaction (GCS), which means that the services offered by the hotel are part of the attractiveness factor why choosing the hotel. The relationship between GCS and loyalty (GCL) also shows a significant p value, this means that the dimensions of customer satisfaction ultimately affect loyalty. Services that are in line with expectations that then make consumers satisfied are the triggers of consumer loyalty.

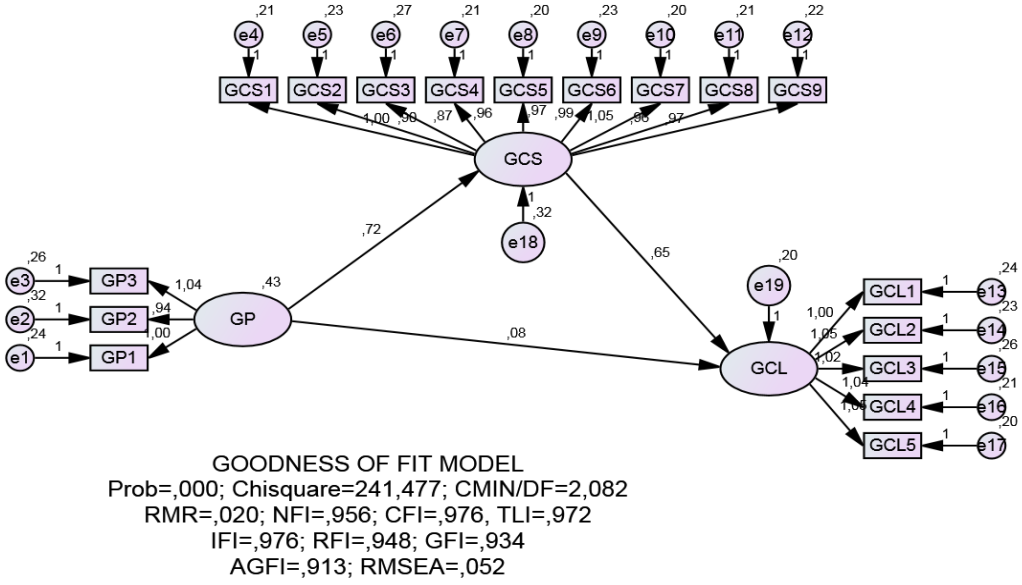


Figure 2. Result of Model Examination of SEM

Table 5. The Result of Inter-variable Testing

Hypotheses			Estimate	S.E.	C.R.	P	Label
GCS	<---	GP	,716	,064	11,272	***	par_15
GCL	<---	GCS	,653	,058	11,265	***	par_16
GCL	<---	GP	,082	,060	1,368	,171	par_17
GP1	<---	GP	1,000				
GP2	<---	GP	,944	,067	13,991	***	par_1
GP3	<---	GP	1,038	,069	15,087	***	par_2
GCS1	<---	GCS	1,000				
GCS2	<---	GCS	,898	,045	20,173	***	par_3
GCS3	<---	GCS	,872	,046	18,921	***	par_4
GCS4	<---	GCS	,963	,045	21,503	***	par_5
GCS5	<---	GCS	,972	,044	21,928	***	par_6
GCS6	<---	GCS	,991	,046	21,408	***	par_7
GCS7	<---	GCS	1,048	,046	22,877	***	par_8
GCS8	<---	GCS	,965	,045	21,561	***	par_9
GCS9	<---	GCS	,969	,045	21,569	***	par_10
GCL1	<---	GCL	1,000				
GCL2	<---	GCL	1,053	,056	18,828	***	par_11
GCL3	<---	GCL	1,017	,055	18,329	***	par_12
GCL4	<---	GCL	1,039	,053	19,543	***	par_13
GCL5	<---	GCL	1,048	,054	19,555	***	par_14

Note. Sig.5%; S.E = Standard Error; C.R = Critical Ratio; P = Probability *** means P<0.001

To answer H2 that Green Customer Satisfaction is mediating between Green Purchasing of Green Tourist and Green Customer Loyalty can be done by testing the direct and indirect effects of mediating variables on loyalty (GCL) (see Table 6). The test results show that the direct influence of Green Purchasing (GP) on the dimensions of consumer satisfaction (GCS) is 63.6%, while the direct effect of the dimensions of consumer satisfaction (GCS) on loyalty (GCL) is 70.2%.

GP has an indirect effect to GCL with 44.7%. The direct influence of GCS on GCL (70.2%) shows that the dimensions of GCS customer satisfaction as mentioned by Bastic dan Gojcic (2012), and Berezan et al. (2014) has important role to gaining green tourist loyalty. Based on this test result H2 is accepted.

Table 6. Standardized Direct Effects and Indirect Effects

Standardized Direct Effects				Standardized Indirect Effects			
	GP	GCS	GCL		GP	GCS	GCL
GCS	,636	,000	,000	GCS	,000	,000	,000
GCL	,078	,702	,000	GCL	,447	,000	,000

Based on a series of test, there is a finding that green tourists actually unique, flexible, and more easily to be managed. This consumer group orientation is not solely on convenience but also on its values and contribution to the environment. Usually have high involvement and higher tolerance (Lee et al., 2010) so that actually green hotels are easier to serve this group as long as the service is associated with contributions to environmental preservation.

CONCLUSIONS

Based on the results of the study as explained and tested above, this research answered the reason for the importance to achieve green tourist loyalty with all its unique characteristics. Achieving green tourist loyalty requires a number of services with strong character and high environmental awareness. Through service dimensions such as green attributes, attitude from hotel staff, and healthy food are the factors that support tourist satisfaction. The satisfaction has an important role in mediating customer loyalty. Satisfied customers will tend to be loyal.

Accordingly, H1 was rejected, green tourist who already choose a green hotel not always a loyal customer. To create a loyal customer hotel must be able to achieve customer satisfaction. Satisfaction succeed becomes a mediation between purchasing decisions and loyalty. Therefore, H2 is accepted. Green hotels absolutely have to master and provide environmentally friendly services to be able to get loyal guests.

REFERENCES

Anita, T. L. (2019). The Effect of Brand Personality and Customer Satisfaction to Customer Loyalty at The Mall: A Study Case. *International Journal of Tourism and Hospitality in Asia Pacific (IJTHAP), 2*(1). doi:https://doi.org/10.32535/ijthap.v2i1.352

Asgharian, R., Saleh, M., Saleki, Z. S., Hojabri, R., & Nikkhesiat, M. (2012). Green Product Quality, Green Customer Satisfaction, and Green Customer Loyalty *IRACST-International Journal of Research in Management & Technology (IJRMT), 5*(2).

Balderjahn, I. (1988). Personality variables and environmental attitudes as predictors of ecologically responsible consumption patterns. *Journal of Business Research, 17*, 51-56.

Berezan, O., Millar, M., & Raab, C. (2014). Sustainable Hotel Practices and Guest Satisfaction Levels. *International Journal of Hospitality & Tourism Administration, 15*, 1-18. doi:http://dx.doi.org/10.1080/15256480.2014.872884

Cecilia, G., Elizabeta, M., & Magdalena, B. (2011). Tourism's Changing Face : New Age Tourism versus Old Tourism. *Annals - the University of Oradea, Economic Science Series*, 245-249.

Chan, X., & Chan, K. (2013). Perception of Green Hotels Among Tourist in Hong Kong : An Exploratory Research,. *Service Marketing Quarterly, 34*, 339-352. doi:https://doi.org/10.1080/15332969.2013.827069

Chang, N.-J., & Fong, C. M. (2010). Green Quality, Green Corporate Image, Green Customer Satisfaction, and Green Customer Loyalt. *African Journal of Business Management, 4*(13), 2836-2844.

Chen, Y.-S. (2013). Towards Green Loyalty: Driving from Green Perceived Value, Green Satisfaction, and Green Trust. *Sustainable Development, 21*(5), 294-308. doi:10.1002/sd.500

Dewi, I. C., Adhianata, H., & Suwignyo, A. (2018). Factors That Encourage Surabaya's Citizen In Reservation Through Offline Travel Agent (Travel Bureau) (Case Study On Pt Aneka Tours And Travel Services Surabaya). *International Journal of Tourism and Hospitality in Asia Pacific (IJTHAP), 1*(1). doi:https://doi.org/10.32535/ijthap.v1i1.105

Dimara, E., Manganari, E., & Skuras, D. (2015). *Willingness to pay premium for Green Hotels, Fact or fad ?,*. Paper presented at the Proceedings International Marketing Trends Conference 2015, Greek State.

Ganiyu, R. A. (2017). Customer Satisfaction and Loyalty: A study of Interrelationships and Effects in Nigerian Domestic Airline Industry. *Oradea Journal of Business and Economics, 2*(1).

Gao, Y. L., & Mattila, A. S. (2015). The Impact of Option Popularity, Social Inclusion/Exclusion, and Self Affirmation on Consumers Propensity to Choose Green Hotels. *Business Ethic (2016) 136-575-585*. doi:https://doi.org/10.1007/s10051-014-2536-6

Johri, L. M., & Sahasakmontri, K. (2016). Green marketing of cosmetics and toiletries in Thailand. *Journal of Consumer Marketing, 15*(3), 265-281. doi:http://dx.doi.org/10.1108/07363769810219134

Joshi, Y., & Rahman, Z. (2015). Factors Affecting Green Purchase Behaviour and Future Research Directions *International Strategic Management Review, 3*, 128–143. doi:http://dx.doi.org/10.1016/j.ism.2015.04.001

Kheng, L. L., Mahamad, O., Ramayah, & Mosahab, R. (2010). The Impact of Service Quality on Customer Loyalty: A Study of Banks in Penang, Malaysia *International Journal of Marketing Studies, 2*(2).

Kubickova, M., Nusari, K., Parsa, H., & Hu, H. H. S. (2014). Does Green Hotel Image Influence Guests' Behavior: The Case of Generation Y. *Journal of Services Research, 14*(2), 9-32.

Kusliwal, N., & Agarwal, S. (2015). An Exploratory Study on Women's Perception and Choice of Preference towards the Green Attributes of Hotel Industry. *International Journal of Engineering Technologu, Management and Applied Science, 3*(Special Issues).

Larson, S., & Khan, M. A. (2011). *A Study Factor That Influence Green Purchase*. (Master), Umeå University Umeå University, SE-901 87 Umeå, Sweden.

Lee, J. S., Tzang, L., Han, H., & Kim, Y. (2010). Understanding how consumer view green hotels : how hotels green image can influence behavioral intentions. *Journal of Sustainable Tourism, Vol 18*(7 September 2010). doi:http://dx.doi.org/10.1080/09669581003777747

Manaktola, K., & Jauhari, V. (2007). Exploring cosumer attitude, and behaviour towards green practices in the lodging industry in India. *Journal of Contemporary Hospitality Management, 15*(No 5). doi:https://doi.org/10.1108/09596110710757534

Mohsan, F., Nawaz, M. M., Khan, S., Shaukat, Z., & Aslam, N. (2011). Impact of Customer Satisfaction on Customer Loyalty and Intentions to Switch: Evidence from Banking Sector of Pakistan *International Journal of Business and Social Science, 2*(16).

Orie Berezan, Carola Raab, Michelle Yoo, & Love, C. (2013). Sustainable hotel practices and nationality: The impact on guest satisfaction and Guest Intention to Return *International Journal of Hospitality Management, 34*, 227– 233. doi:http://dx.doi.org/10.1016/j.ijhm.2013.03.010

R.A.Ganiyu, I. Ikechuwku, & A.O. Elizabeth. (2012). Is Customer Satisfaction an Indicator of Customer Loyalty? . *Australian Journal of Business and Management Research, 2*(7), 14-20.

Saleem, H., & Raja, N. S. (2014). The Impact of Service Quality on Customer Satisfaction, Customer Loyalty and Brand Image: Evidence from Hotel Industry of Pakistan. *Middle-East Journal of Scientific Research, 19* (5), 706-711. doi:https://doi.org/10.9790/487X-1616117122

Srivastava, M. (2015). Influencers of Customer Satisfaction Customer Loyalty Relationship: A Conceptual Research Model. *Indore Management Journal, 7*(1).

Sundaraju, S., Kee, D. M. H., Lopez, R. D., Balakrishnan, Y., & Sagadevan, Y. (2019). Research on U Hotel. *International Jounal of Tourism and Hospitality in Asia Pasific (IJTHAP), 2*(1), 1-3. doi:https://doi.org/10.32535/ijthap.v2i2.525

Tabachnick, B. G., & Fidell, L. S. (2013). *Using Multivariate Statistics* (6th ed.). Boston US: Pearson.

Taherdoost, H. (2016). Validity and Reliability of the Research Instrument; How to Test the Validation of a Questionnaire/Survey in a Research. *International Journal of Academic Research in Management (IJARM), 3*(5), 28 - 36. doi:https://doi.org/10.2139/ssrn.3205040

Wisker, Z. L., & Kwiatek, P. (2018). The Effects of Environmental Orientation on Firm Performance and a Mediating Role of Employee-Based Brand Equity: A comparative study. *International Journal of Applied Business & International Management (IJABIM), 3*(2). doi:https://doi.org/10.32535/ijabim.v3i2.157

Wolok, T. (2019). Analysis of The Effect of Green Marketing on Consumer Purchasing Decisions on The Body Shop Gorontalo Product. *International Journal of Applied Business & International Management (IJABIM), 4*(2). doi:https://doi.org/10.32535/ijabim.v4i2.569

Young, W., Hwang, K., Donald, S. M., & Oates, C. J. (2010). Sustainable Consumption: Green Consumer Behaviour when Purchasing Products. *Sustainable Development, 18*, 20 -31. doi:https://doi.org/10.1002/sd.394

Yu, Y., Li, X., & Jai, T.-M. C. (2017). The Impact of Green Experience on Customer Satisfaction : Evidence from TripAdvisor. *International Journal of Contemporary Hospitality Management, 29*(5), 1340-1361. doi:https://doi.org/10.1108/IJCHM-07-2015-0371

E-Journal of Tourism Vol.7. No.1. (2020): 126-137

Analysis of Perceived Factors Affecting Tourist Satisfaction in Mountain Tourism: A Study In Mount Papandayan, Indonesia

Afina Putri Vindiana, Santi Novani, Lidia Mayangsari, and Dini Turipanam Alamanda

School of Business and Management, Bandung Institute of Technology

Corresponding author: afina_putri@sbm-itb.ac.id

ARTICLE INFO

Received
02 January 2020

Accepted
18 March 2020

Available online
31 March 2020

ABSTRACT

Although the mountain is a popular tourist destination, research regarding mountain tourism is still limited. Over the years, researches on tourist satisfaction covered a more general context of tourism, without specifically analyzing mountain tourism. Therefore, this research aims to investigates factors influencing tourists' satisfaction on mountain tourism, with Mount Papandayan, Garut Regency, West Java, Indonesia, as a case. Eleven variables regarding tourist satisfaction were derived from several interviews with Mount Papandayan's management staff and 30 tourists that were hiking and camping on Mount Papandayan. A sample of 100 respondents, who were the Mount Papandayan's tourists that had been hiking and camping, completed questionnaires. Exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) was used to analyze the data. The results show that there are three factors that affect tourist's satisfaction in mountain tourism, which are 'infrastructure and facilities', 'natural resources', and 'mountain area's atmosphere', while CFA validated the model fit. The results also indicated a significant relationship between the three factors. This research provides an opportunity for broader research opportunities in mountain tourism, especially in tropical countries.

Keywords : mountain tourism, satisfaction, EFA, CFA.

INTRODUCTION

Background

Mountain is one of the most popular tourist destinations, with its beautiful view and atmosphere. Having the mountainous region as a tourist destination is important to create sustainable development for an area where resources are limited (Messerli & Ives, 1997). Other than that, once a mountain is set as a tourist destination, there will be beneficial actions done such as environmental protection in order to

preserve the authenticity of the destination. According to UNWTO, tourism in the mountainous area is called 'mountain tourism', and it offers typical activities according to the environment of the mountain. This means the activities offered in tropical countries are different to those offered in subtropical countries. However, there is an ongoing problem between mountain tourism in subtropical and tropical countries. Tourists nowadays seem to favor snow-related activities which are only found in mountain tourism in subtropical countries, leaving tourism activities in tropical mountain unpopular (Fredman & Heberlein, 2003).

Indonesia, as one of the tropical countries, lies in the legendary area called "The Ring of Fire" with 452 active and dormant volcanoes, which means it has a lot of developing mountain tourism areas. Mountain tourism becomes an important part of the overall tourism industry as 20 percent of tourists are mountainous regions' tourists (Silva, Kastenholz & Luís, 2015).

In order to maintain the sustainability of tourism in tropical countries' mountain regions, where there are no winter-themed outdoor activities included, factors that influence tourist's satisfaction after visiting the mountain area should be investigated. It is widely believed that a high level of tourist satisfaction will maintain the loyalty of the tourists (Wiranatha et al., 2018; Wiranatha et al., 2016; Suryawardani et al., 2017), create the intention to revisit and get them to spread positive word of mouth (Baker & Crompton, 2000; Del Bosque & San Martin, 2008) .

Research Objectives

Development of a new perspective of mountain tourism becomes an exciting endeavor, especially the studies on what makes tourists feel satisfied with mountain tourism. Therefore, the aim of this study is to identify factors affecting the satisfaction of tourists who choose mountain tourism for vacation and empirically validate the model of tourist satisfaction in mountain tourism. This research measure tourist satisfaction with more objective variables than previous researches, which usually focused on expectation-perceived experience model or cognitive-affective, emotional-related model (Kozak & Rimmington, 2000). By studying factors influencing tourist satisfaction in a specific context, the future development of mountain tourism could be on target and eventually, increasing the number of tourists. This study uses Mount Papandayan for its case, as it is one of the most developed mountain regions in Indonesia and one of the most popular sites for mountain tourism.

LITERATURE REVIEW

Tourist Satisfaction

To maintain the loyalty of the tourists, tourist satisfaction's level must be high enough, thus making research in tourist satisfaction quickly grows since the 1980s as it is assumed to be directly related to competitive advantage a destination has (Baker & Crompton, 2000; Del Bosque & San Martin, 2008). At the beginning of the tourist satisfaction research era, tourist satisfaction was considered as an emotional experience and cognitive judgments of the destination with negative or positive emotions as the output that defines the satisfaction variable (Oliver, 1993). The difference that tourists expect and what the real experience of tourists was also perceived as another way to measure tourist satisfaction (Oliver, 1980; Wirtz, Mattila & Tan 2000), but it is rejected by many researchers due to being too subjective (Johns, Avci & Karatepe, 2004). Meanwhile, Gronroos (1990) started to think that the measurement for customers (or tourists in tourism context) satisfaction is the outcome of the certain quality of service and its perception by customers.

The importance of measuring tourist satisfaction increases in the context of quality. The poor performance provided by one of the elements of a tourist destination could create a 'halo effect': a condition where tourists' dissatisfaction with a destination's component makes tourists feel dissatisfied with the overall tourism experience and elements (Cohen, 2013). This phenomenon makes a new era of tourist satisfaction research in quality of performance rather than emotional-related. The identification of destination's elements are significant in defining overall tourist satisfaction, yield managers' support to decide on investing for improvement of tourist destination, thus increasing the competitiveness of the destination (Bernini & Cagnone, 2014).

This research aims to measure tourist satisfaction with tourism products and atmosphere as the main variables, which are considered more reliable than previous research on expectation-perceived experience model or cognitive-affective, emotional-related model in tourist satisfaction (Kozak & Rimmington, 2000).

Tourist Satisfaction on Mountain Tourism

The number of researchers that conduct studies in mountain tourism is increasing since the beginning of the 2000s (Godde, Price & Zimmermann, 2000; Beedie & Hudson, 2003; Nepal, 2003), even though most of them only cover the nature conservation of mountain

area. The development of a new perspective of mountain tourism, therefore, becomes an exciting endeavor, especially regarding the tourists' behaviour toward mountain tourism.

Tourism prospects in the mountain area are getting higher, and one of the attractiveness of mountain is related to its beauty of nature. Fredman (2008) stated that the beautiful view a destination could offer would give a significant amount of total outdoor experience. This means mountain tourism has significant opportunities to give total satisfaction to tourists, by combining stunning scenery with high quality of service. The value of mountain tourism is very substantial as about 20 percent of the tourist industry, per year, is elucidated by mountain tourism (Silva, Kastenholz & Luís, 2015).

As mentioned before, investigating tourist satisfaction could influence the loyalty of tourists and create the intention to revisit. Mountain tourism, although still gaining popularity, has lost some of its tourists (Fredman & Heberlein, 2003), thus it is urgent to research regarding tourists' intention to revisit-which begins with what influences tourist satisfaction in mountain tourism.

Research in the mountainous landscape as a tourist destination rarely came across the management aspect, especially tourist's satisfaction (Smethurst, 2000). Meanwhile, a study in tourist satisfaction usually deals with a more general concept of tourism, which sometimes does not apply to the mountain tourism context. Nevertheless, the number of researchers that conduct studies on mountain tourism is increasing since the beginning of the 2000s. Previous research in mountain tourism has discussed the conceptual framework of mountain tourism (Nepal & Chipeniuk, 2005), which later expands to the perception of residents living near mountain destinations (Silva, Kastenholz & Luís, 2015). Research in mountain tourism's sustainability and accommodation was also conducted (Dornier & Selmi, 2018), and the emotional-related research that explains tourists' experience in mountain tourism (Frochot, Elliot & Kreziak, 2017).

METHODOLOGY

Prior to collecting the data, several semi-structured interviews regarding tourist satisfaction were conducted with Mount Papandayan Tourism Management's staff and 30 domestic tourists that were hiking and camping on Mount Papandayan. The interviews were conducted in Bahasa Indonesia in a spot inside the Mount Papandayan's site that was quite secluded to diminish unnecessary noises on the interviews'

recording. The interviewees were informed of some important information regarding the interviews, such as the objectives and confidentiality of the interviews, how the interviews took some time and were recorded and transcribed for further analysis.

Based on the interviews, a total of 11 variables were included in the final questionnaire:

1) fresh air
2) view
3) cleanliness
4) photogenic spot
5) direction board
6) restaurant
7) crater
8) destination for families
9) forest
10) flower garden
11) safe trekking route

Some of the variables derived from interview results were selected in accordance with previous literature on tourism. For example, "cleanliness" was selected because Tasci, Gartner, & Cavusil (2007) mentioned that cleanliness of the environment and maintenance of public facilities is one of the attributes that represent tourist's satisfaction. "Direction board" was also inserted as a variable because Bagri & Kala (2015) claimed that it is important to see if tourists are satisfied with the current direction board and signage that are embedded in the tourism spot.

After the questionnaire was finalized, a survey was conducted in Mount Papandayan to collect data. Respondents were selected using purposive sampling, where domestic tourists were asked first if they had been hiking and camping on Mount Papandayan. Likert scale was used on the questionnaires, ranging from 1 to 4, with 1 as "strongly disagree" and 4 as "strongly agree". Even-numbered Likert scale was chosen to urge the respondents to choose between agree and disagree, preventing neutral position that usually occurs in an odd-numbered Likert scale (Brown, 2000). A sample of 100 respondents was collected from the survey. Exploratory factor analysis (EFA) was selected to group several observed variables into relevant factors. EFA also gives the possibility for the researcher to consider cultural differences and research settings (Hadi, Abdullah & Sentosa, 2016). Confirmatory Factor Analysis (CFA) was used to validate the proposed model from EFA results. EFA was conducted using IBM SPSS Version 23.0, while CFA was performed using AMOS 23.

RESULTS AND DISCUSSION

Based on the profile of the respondents, most of them came from Jakarta, the capital of Indonesia. The majority of the tourists get information about Mount Papandayan from their friends, which could be a sign for a positive effect of word of mouth (WOM).

Table 1. Respondents' Profile (N = 100)

Variable	%
Gender	
Male	72
Female	28
City of Residence	
Jakarta	22
Bandung	18
Garut	14
Tasikmalaya	12
Bekasi	8
Other	26
Information Source	
Friends	70
Family	4
Social Media	22

Source : Data Analysis (2019)

After identifying the profile of the respondents, EFA was performed to sort variables into several factors. Principal component and varimax rotation were used to investigate orthogonal factor dimensions. The number of factors is extracted based on eigenvalues greater than 1.0, rotated by varimax analysis. Cut-off for factor loadings is set to 0.50 as it is perceived as an excellent cut-off to decrease the probability of cross-loadings (Kalia, 2017).

Eleven variables regarding satisfaction resulted in three-factor groupings: "infrastructure facilities", "natural resources", "mountain area's atmosphere", and explained 61.232% of the variance. From the results of grouping variables into factors (Table 2), variables related to the destination attractions such as crater and flower garden are grouped under the same factor, while variables regarding what tourists feel or see are assembled into another factor. The same goes for variables concerning facilities such as restaurants or food stalls, direction board, and trekking route.

Table 2. Exploratory Factor Analysis Results

Factors	Factor Loading	Eigen Value	% of Variance
F1: Infrastructure Facilities		4.398	39.980
Cleanliness	0.666		
Direction Board	0.713		
Restaurant	0.592		
Safe Trekking Route	0.724		
Destination for Families	0.678		
F2: Natural Resources		1.316	11.966
Forest	0.644		
Flower Garden	0.850		
Crater	0.675		
F3: Mountain Area's Atmosphere		1.021	9.286
Fresh Air	0.652		
View	0.638		
Photogenic Spot	0.862		
Total Variance Explained			61.232

Source : Data Analysis (2019)

Factor loadings were ranging from 0.592 to 0.862, which means the correlations between the items and the factor groupings are good. Commonalities of the variables were ranging from 0.522 to 0.764, indicating a moderate fit between variables within a component. To measure the construct validity, convergent validity and discriminant validity were conducted. Convergent validity of each construct was determined by analyzing AVE and composite reliability.

Table 3. Composite Reliability and AVE of Constructs

Factors	AVE	Composite Reliability
Infrastructure Facilities	0.457	0.807
Natural Resources	0.531	0.769
Mountain Area's Atmosphere	0.525	0.764

Source : Data Analysis (2019)

From Table 3, "Natural Resources" and "Mountain Area's Atmosphere" had good value of AVE and composite reliability, as the minimum value of AVE and composite reliability is 0.5 and 0.7, respectively (Fornell & Lacker, 1981). However, "infrastructure facilities" has AVE lower than 0.5, but the composite reliability passed the minimum criteria, so it is still acceptable (Fornell & Lacker, 1981). The discriminant validity was assessed by calculating the shared variance between the constructs.

Table 4. Correlation and Shared Variance Between Constructs

Factors	Coefficient of correlation	Shared Variance
Infrastructure Facilities – Natural Resources	0.479	0.229
Natural Resources -- Mountain Area's Atmosphere	0.419	0.175
Infrastructure Facilities -- Mountain Area's Atmosphere	0.320	0.102

Source : Data Analysis (2019)

The AVE of each construct is higher than the shared variance between the constructs shown in Table 4. Based on that results, it can be concluded that the discriminant validity of the constructs is established (Fornell & Lacker, 1981). First-order CFA was performed to analyze the model constructed by EFA results.

The results showed a fit for the tested model, with significant Chi-square/df less than 2 (Byrne, 2013), RMSEA (root mean square error of approximation) less than 0.08, and GFI (goodness of fit index), CFI (comparative fit index), and TLI (Tucker Lewis Index) more than 0.90 (Table 5). The AGFI (adjusted goodness of fit index) however, has the value lower than 0.90, but it is still categorized as marginal fit since the value is higher than 0.80.

Table 5. CFA Fit Results

Indicator	Value	Note
CMIN/df (< 2)	1.167	Fit
RMSEA (< 0.08)	0.041	Fit
GFI (> 0.90)	0.919	Fit
CFI (> 0.95)	0.977	Fit
TLI (> 0.90)	0.969	Fit
AGFI (> 0.90)	0.870	Marginal Fit

Source : Data Analysis (2019)

The first-order CFA also showed a three-factor model that defines the data, with good correlation between each factor (Figure 1).

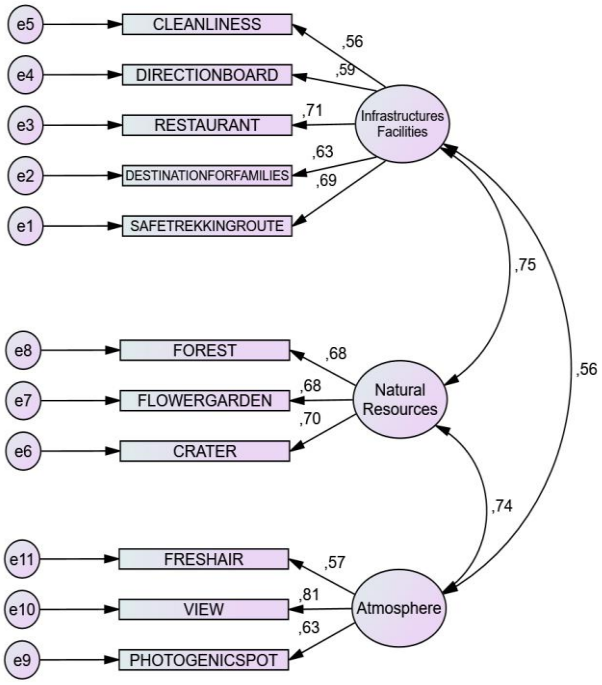


Figure 1. CFA model with standardized regression coefficients

From the model, it could be interpreted that "Infrastructure Facilities" factor is significantly correlated with "Natural Resources" (0.75), and so "Natural Resources" is significantly correlated with "Mountain Area's Atmosphere" (0.74). "Infrastructure Facilities" is also positively correlated to "Mountain Area's Atmosphere" (0.56). The results indicated that "Natural Resources" have the most significant relationship to the other factors, so management staffs of Mount Papandayan should maintain the natural resources seriously, as it significantly affects other factors of tourists' satisfaction in mountain tourism. The standardized correlation coefficients results showed that the each variable is significant since the p-value is lower than 0.001, with "Restaurant" as the most important variable in "Infrastructure Facilities" factor (0.713), while variable named "Crater" is the most significant among the other variables under "Natural Resources" factor (0.70). Lastly, the third factor, "Mountain Area's Atmosphere", has variable "View" as the most important one (0.81).

Finding on how restaurant is seen as the most important aspect on destination's facilities and infrastructure is aligned with previous study by Faulkner, Oppermann, & Fredline (1999). Tourist destination should highlight the restaurant or cuisine as its tourism product, as tourists' interest on food in tourist destination grows bigger. Previous research even claimed that a destination that could provide restaurants with good

experience will make the tourists feel more satisfied with the destination. Meanwhile, crater is seen as the most important natural resource for tourists visiting mountain region. It could be seen as accurate, considering crater is a unique property owned by a mountain. A unique resource makes a tourist destination as alluring to some of the tourists, thus in this case, mountain is a potential tourist destination as it has many unique resources that another area doesn't (Swaarbrooke, 1995).

The three factors contributing to tourist satisfaction on mountain tourism are all supported by previous studies on tourism. In Southeast Europe, destination's infrastructure correlates to the success of its development, since better infrastructure means better production and distribution of services in the destination (Jovanović & Ivana, 2016). High investment in creating new infrastructure and facilities will likely bring more tourists to come, especially hotel rooms. Surprisingly, variables called "destination for families" and "cleanliness" were included in infrastructure factor, which means the destination's facilities and infrastructure should be family-friendly and has good hygiene.

"Natural resources" as a factor regarding tourist satisfaction from this study, is aligned with previous research that dotted natural resources as the primary element for tourists to come (Mihalič, 2013), though it is also implied that due to uncertain behavior of nature, other aspects from the destination such as services and infrastructure should be improved to create satisfaction among tourists, as bad infrastructure relates to lower tourist satisfaction, which suits the result of this research (Coghlan, 2012).

The last factor, "Mountain area's atmosphere", is supported by previous research (Becken, 2010) about how the climate and weather of a tourist site is important in determining tourist's decision to visit it. Tourists will not choose a tourist destination that often has bad weather or climate since it prevents them to enjoy the site and poses many risks. Mount Papandayan has fresh air and beautiful view that is protected well enough for tourists to enjoy, and it is important to keep the atmosphere of Mount Papandayan the way it is, as changes in atmosphere, according to Becken (2010), will cause loss of prospective tourists.

CONCLUSION

Tourist satisfaction in mountain tourism can be seen from three factors: "Infrastructure and Facilities", "Natural Resources", and "Mountain Area's Atmosphere". These three factors are significantly correlated with one another,

so a sufficient maintenance is needed on these factors to increase tourists' satisfaction in mountain tourism, especially the natural resources, which have a stronger influence toward other factors. Mountain's crater, forest, and flower garden, which are the site's natural resources, should be maintained carefully, as those features are what makes tourists feel satisfied after visiting mountain area.

Future research should consider including two or three sites of mountain tourism as study case. Further research could also implies a second-order factor analysis to analyze tourist satisfaction toward mountain tourism.

REFERENCES

Bagri, S. C., Kala, D. (2015). Tourists' satisfaction at Trijuginarayan, India: An importance-performance analysis. Advances in Hospitality and Tourism Research, 3(2), 89-115.

Baker, D. A., & Crompton, J. (2000). Quality, satisfaction, and behavioral intentions. Annals of Tourism Research, 27(3), 785-804.

Becken, S. (2010). The importance of climate and weather for tourism. Land Environment and People (LEaP) background paper, Lincoln University, 4-13.

Beedie, P., & Hudson, S. (2003). Emergence of mountain-based adventure tourism. Annals of tourism research, 30(3), 625-643.

Bernini, C., Cagnone, S. (2014). Analysing tourist satisfaction at a mature and multi-product destination. Current Issues in Tourism, 17(1), 1-20.

Brown, J. D. (2000). What issues affect Likert-scale questionnaire formats. Shiken: JALT Testing & Evaluation SIG Newsletter, 4(1), 27-30.

Byrne, B. M. (2013). Structural equation modeling with LISREL, PRELIS, and SIMPLIS: Basic concepts, applications, and programming. Psychology Press.

Coghlan, A. (2012). Linking natural resource management to tourist satisfaction: a study of Australia's Great Barrier Reef. Journal of Sustainable Tourism, 20(1), 41-58.

Cohen, J. (2013). Statistical power analysis for the behavioral sciences (2nd ed). Routledge.

Del Bosque, I. R., San Martin, H. (2008). Tourist satisfaction: A cognitive-affective model. Annals of Tourism Research, 35, 551-573.

Dornier, R., & Selmi, N. (2018). Peer-to-peer accommodation and sustainability in mountain areas. Worldwide Hospitality and Tourism Themes, 10(2), 259-266.

Faulkner, B., Oppermann, M., & Fredline, E. (1999). Destination competitiveness: An exploratory examination of South Australia's core attractions. Journal of Vacation Marketing, 5(2), 125-139.

Fornell, C. R., & Lacker, D. F. (1981). Two structural equation models with unobservable variables and measurement error. Journal of Marketing Research, 18(1), 39–50.

Fredman, P., & Heberlein, T. A. (2003). Changes in skiing and snowmobiling in Swedish mountains. Annals of tourism research, 30(2), 485-488.

Fredman, P. (2008). Determinants of visitor expenditures in mountain tourism. Tourism Economics, 14(2), 297-311.

Frochot, I., Elliot, S., & Kreziak, D. (2017). Digging deep into the experience–flow and immersion patterns in a mountain holiday. International Journal of Culture, Tourism and Hospitality Research, 11(1), 81-91.

Godde, P. M., Price, M. F. and Zimmermann, F.M. (2000). Tourism and Development in Mountain Regions, Wallingford, UK: CABI Publishing.

Gronroos, C. (1990). Service management and marketing: Managing the moments of truth in service competition. Lexington: Lexington Books.

Hadi, N. U., Abdullah, N., Sentosa, I. (2016). An easy approach to Exploratory Factor Analysis: marketing perspective. Journal of Educational and Social Research, 6(1), 215.

Johns, N., Avci, T., & Karatepe, O. M. (2004). Measuring service quality of travel agents: evidence from Northern Cyprus. The Service Industries Journal, 24(3), 82-100.

Jovanović, S., & Ivana, I. L. I. Ć. (2016). Infrastructure as important determinant of tourism development in the countries of Southeast Europe. Ecoforum Journal, 5(1).

Kalia, P. (2017). Service quality scales in online retail: methodological issues. International Journal of Operations & Production Management, 37(5), 630-663.

Kozak, M., & Rimmington, M. (2000). Tourist satisfaction with Mallorca, Spain, as an off-season holiday destination. Journal of travel research, 38(3), 260-269.

Messerli B. & Ives, J. D. (1997). Mountains of the World: A Global Priority. Carnforth: Parthenon.

Mihalič, T. (2013). Performance of Environmental Resources of a Tourist Destination. Journal of Travel Research, 52(5), 614–630.

Nepal, S. K. (2003). Strategies for mountain ecotourism development, in Ranga M. and Chandra D. (Eds) Tourism and Hospitality in the 21st Century, 135–154. New Delhi: Discovery Publishing.

Nepal, S. K., & Chipeniuk, R. (2005). Mountain tourism: Toward a conceptual framework. Tourism Geographies, 7(3), 313-333.

Oliver, R. L. (1993). Cognitive, affective, and attribute bases of the satisfaction response. Journal of Consumer Research, 20(3), 418-430.

Oliver, R. L. (1980). A cognitive model of the antecedents and consequences of satisfaction decisions. Journal of Marketing Research, 17(4), 46-49.

Silva, C., Kastenholz, E., & Luís Abrantes, J. (2015). Residents' perceptions of mountain destinations. Marketing Places and Spaces. UK: Emerald Group Publishing Limited.

Smethurst, D. (2000). Mountain geography, The Geographical Review, 90(1), 35–56.

Suryawardani, I. G. A. O., Wiranatha, A. S., Bendesa, I. K. G., Antara, M., & Gravari-Barbas, M. (2017). A Structural Model of Foreign Tourists' Loyalty in Nature-Based Tourism in Bali. International Journal of Applied Business and Economic Research, 15(19), 195-214.

Tasci, A. D., Gartner, W. C., & Cavusgil, S. T. (2007). Measurement of destination brand bias using a quasi-experimental design. Tourism Management, 28(6), 1529-1540.

Wiranatha, A. S., Bendesa, I. K. G., & Suryawardhani, I. G. A. O. (2018). Model of Foreign Tourists' Loyalty in Cultural and Heritage Tourism in Bali. Global and Stochastic Analysis, 5(8), 73-92.

Wiranatha, A. S., Suryawardani, I. G. A. O., Bendesa, I. K. G., & Antara, M. (2016). Model of Foreign Tourist's Loyalty on Marine Tourism to Visit Bali. International Journal of Multidiciplinary Education Research, 5(3), 1-16.

Wirtz, J., Mattila, A. S., & Tan, R. L. (2000). The moderating role of target-arousal on the impact of affect on satisfaction—an examination in the context of service experiences. Journal of retailing, 76(3), 347-365.

E-Journal of Tourism Vol.7. No.1. (2020): 138-156

Who Are The Tourists?

Christine PETR

Laboratoire d'économie et de gestion de l'Ouest
Université Bretagne Loire, France

Corresponding Author: christine.petr@univ-ubs.fr

ARTICLE INFO

Received
20 January 2020

Accepted
18 March 2020

Available online
31 March 2020

ABSTRACT

Tourism is the subject of much research and evaluation at the national or international level. however, tourism remains under-theoretical and defining tourism has long been a challenge for those studying this field. Whether it is a question of quantifying flows, measuring the importance of recurrent and emerging practices, or identifying motivations for choosing destinations and activities, one of the priorities is to be able to accurately identify the subject of study. Purpose of the study are to review (i) who is the author of these so-called "tourist" trips and stays?, and (ii) who can be classified as a tourist? method is based on on the review of some literatures related to the topic. The results show that contextualized and recalled the definitions of tourists based on the recommendations made since IRTS 2008 by the supranational organization for the promotion of tourism on a global scale

Keywords: foreigners, holiday makers, visitors, multicultural exchanges

INTRODUCTION

There has been understoot that tourism is the subject of much research and evaluation at the national or international level. however, tourism remains under-theoretical and defining tourism has long been a challenge for those studying this field. Measuring the importance of recurrent and emerging practices, or identifying motivations for choosing destinations and activities, is one of the priorities that be able to accurately identify.

This study reviews

(i) who is the author of these so-called "tourist" trips and stays?, and

(ii) who can be classified as a tourist? method is based on on the review of some literatures related to the topic.

LITERATURE REVIEW

Define the tourist: between evidence and needs for precision

Tourism is the subject of much research and evaluation at the national or international level. However, tourism remains under-theoretical (Liburd, 2002; Demen-Meyer, 2005) and defining tourism has long been a challenge for those studying this field (Boyer, 1972). Whether it is a question of quantifying flows, measuring the importance of recurrent and emerging practices, or identifying motivations for choosing destinations and activities, one of the priorities is to be able to accurately identify the subject of study (Williams, 2004). So who is the author of these so-called "tourist" trips and stays? Who can be classified as a tourist?

Beyond the answers that come spontaneously (*e.g.*: "foreigners"; "holidaymakers who come to us"; "we ourselves when we go elsewhere"; "everyone") and which refer to the so-called "popular" definition (Leiper, 1993), the qualification of tourist status must be considered with finesse and rigour to meet academic and technical ambitions. It is not enough to ask the question "where do you live? "and to note the difference between the place of study and nationality. Indeed, being a tourist goes beyond the simple fact of coming from an area of geographical or administrative origin different from the one in which you are currently living. It is also necessary to consider the time dimension of the stay. It is also necessary to take into account the motivations and activities that are carried out in this geographical area of temporary residence. These three dimensions make it possible to explain and understand more precisely the variations in tourist behaviour and reactions. Their knowledge then allows and implies the necessary adaptations both for the management of receiving and sending tourism companies and for the economic and social development of the destination.

Considering this need for a detailed definition of the tourist, this chapter is divided into two stages. First, the ambition is to recall the context and issues that have governed the selection of the criteria for characterizing the statistical unit of tourism that is the individual tourist. Secondly, it is a question of specifying the three perimeters, spatial, temporal and functional (*i.e.* motivations and activities) that must be considered in order to precisely define tourists and thus better situate their expectations and needs in view of the different tourist populations they constitute.

Context, issues and definition of the tourist

After a presentation of the structuring of UNTWO and its participation in the development of a harmonised and usable reference framework for the measurement of tourism by all nations, the definitions of the four reference tourist units are presented.

The progressive structuring of definitions

If the need for definitions was expressed in 1934 by the International Union of Official Tourist Propaganda Organizations and confirmed by the Council of the League of Nations in 1937, this need became more acute after the Second World War. Indeed, the world that was being rebuilt was relying in part on tourism to re-establish peaceful exchanges between countries and nations. Thus, in 1954, what is now UNWTO (*United Nation World Tourism Organization*) participated in the United Nations Conference on Customs Formalities to facilitate and promote tourism. And it was at the initiative of this supranational body that, in 1963, at the United Nations conference in Rome, technical cooperation and the promotion of freedom of movement were discussed.

In this post-war period, the argument for tourism development is based above all on economic potential (*i.e.* tourism as a vehicle for development) and on the strengthening of interindividual and multicultural exchanges (*i.e.* tourism as a vehicle for peace thanks to the increased sociability between inhabitants of the various nations and between inhabitants of the various regions within each nation). Today, the argument in support of tourism development is broadened since there is a regular discussion, especially since 2017, which was the International Year of Tourism for Sustainable Development, of highlighting the contribution of tourism to raising awareness of the need to protect the environment and preserve local cultures (Highlights UNTWO 2017).

To meet these challenges of promoting tourism, it is necessary to be able to demonstrate the usefulness of tourism to leaders and political actors in all countries of the world. The prerequisites are therefore to be able, on the one hand, to prove its quantitative importance on a global and country-by-country basis and, on the other hand, to be able to assess, in figures, the economic and social development potential for each destination.

As an economically studied phenomenon (Py, 2007), it is a question of how to measure volumes and flows of travellers. In the *end*, this makes it possible to calculate the direct and indirect economic benefits linked to these volumes by using figures relating to overnight stays and tourist visitor spending.

As such, five key figures related to economic development are regularly highlighted at the global level: 1) the number of jobs, 2) the weight in world GDP, 3) the turnover of world exports linked to international tourism activity, 4) the share that this represents in total world exports, and 5) the relative share if we consider only exports of services. Thus, for 2017, UNTWO announces performances that are respectively: 1 in 10 jobs in the world is related to tourism, tourism represents 10% of world GDP, which reaches 1,400 billion Dollar (USD) of world exports, or 7% of world exports for tourism alone, and corresponds to 30% of exports of services.

A historical review of the structure and actions of UNWTO, summarized in a table (Table 1), shows the steps in the pursuit of this characterization objective for international measurement purposes. A quick reading of this table reveals three key dates in the history of the conceptualization and statistical measurement of tourism:

a. **1963**, with the Rome Conference, where the recommendations made by what would later become UNWTO, to define the tourist and to distinguish him from other related concepts such as the visitor, the traveller and the excursionist, were accepted by the United Nations.
b. **1991,** with the Ottawa conference, where the principle of building a common and harmonized global reference framework for tourism measurement methods at the national and international levels was validated.

However, this intention is not translated into a priority and is only really operationalized as from 2004 with the decision of the United Nations Statistical Commission (*Official Records of the Economic and Social Council* 2004, Supplement No. 4 (E/2004/24), Chap. III C. para.6 (c and d)) to design a set of recommendations for tourism statistics.

a. **2008,** with the proposal by UNTWO for a tourism glossary that is the result of two years of work by the international community (UNWTO, 2005/2007).

The ambition is to propose definitions and classifications that can be integrated into all national tourism

statistics systems. Despite the priority given to measurement, however, economics is no longer the only grid to be used, since these conceptual and statistical recommendations aim to provide a common basis for all research and surveys on tourism, whether the prism is social, cultural or economic.

These international recommendations were finally and definitively approved by the United Nations in 2014. They are the subject of the publication in 2016 of the "IRTS 2008 Compilation Guide" which is, to date, the standard to be used.

Table 1. History of definitions and approvals of units of measurement and statistical elements of tourism

Date	***Creation of organizations (UIOOP, UIOOT, WTO, UNWTO) and Statistical Recommendations***
1934	Creation of the UIOOP (International Union of Official Tourist Propaganda Organizations)
1937	The Council of the League of Nations (future UN) recommends the establishment of a definition of "international tourist" for statistical purposes
1946	1st International Congress of National Tourism Organisations
1947	Creation of the IUOTO (International Non-Governmental Organisation): International Union of Official Tourism Organisations
1948	UIOOT obtains consultative status with the United Nations
1950	Partial amendment of the definition of international tourist (Dublin)
1963	Adoption of the recommendations made by the IUOTO on the definition of the terms "visitor" and "tourist" (Rome) Validation of the definition of "international tourist"
1968	Validation of the definition of "visitor", "tourist" and "excursionist" by the UN Statistical Commission
1975	Extraordinary General Assembly of the IUOTO: adoption of the statutes of the World Tourism Organisation (WTO) and 1st General Assembly in Madrid (current headquarters)
1991	Adoption of the resolution on the statistical needs of the tourism sector (International Conference on Travel and Tourism Statistics in Ottawa) Choice to rely on the experience of certain states (including France and Canada) for the establishment of "National Tourism Satellite Accounts" (NTS)
1993	UN Statistical Commission approval of Ottawa recommendations Proposal of the foundations of the tourism statistics system: concepts, definitions, indicators and classifications, including SICTAT or CITAT for "International Standard Classification of Tourism Activities" (Bali) Integration of these recommendations by the EEC Council in 1995
1999	Approval of the "Tourism Satellite Account" (TSA) at the World Tourism Conference (Nice), approved in 1997 for OECD countries
2001	TSA 2001: Approval by the United Nations Statistical Commission of the international standards for the "Tourism Satellite Account" (CST)
2005-2007	Work on the preparation of a consensual framework for the evaluation and analysis of the tourism economy by the international community under the aegis of UNWTO.
2008	IRST 2008: *International Recommendations for Tourism Statistics (*Glossary of harmonised and usable definitions and classifications for all national and international tourism statistics systems) Published by the UN Economic and Social Affairs Commission in 2016

The four statistical reference units: traveller, visitor, tourist and excursionist

On the basis of the conclusions that UNTWO has sought to collect in the IRTS 2008, the definitions distinguish four statistical units: the traveller, the visitor, the tourist, and the excursionist. Extracted and translated from Annex 1 of the version published by the United Nations, in the four definitions we are now quoting, the words in italics correspond to the key ideas and terms underlying these conceptualizations.

(i) The traveller *("*traveller"*):*

A traveller is a person who *travels* between different geographical locations for any reason and for any duration (IRTS 2008, para.2.4).

This definition includes, in travellers, people in migration, which required, since 1993, to distinguish tourist flows within other flows related to international migration. To identify the tourist among other travellers, it is therefore necessary to go further and make more precise categorizations (those below).

(ii) The visitor *("*visitor"*):*

According to IRTS 2008 (para. 2.9), a visitor is a traveller who travels to a *main destination, different from his or her usual environment*, for less than one year, for any reason whatsoever (business, leisure or other personal purposes) as long *as it is not to be employed* by an entity resident in the country or place concerned. Visitor trips are *tourist trips* (IRTS 2008, para.2.29).

- **The** *tourist* ("*tourist"* or *"overnight visitor*"):

According to the IRTS 2008 (para. 2.13), a tourist is a visitor (domestic, entering or leaving the country or region in question) whose trip includes at *least one overnight stay at destination*. But his stay in the destination must not exceed one year.

(iii) The excursionist *or* same-day visitor

An excursionist is a visitor (domestic, entering or leaving the country or region in question) whose journey takes place during the day. This *round trip on the same day* means that there is no overnight stay in the main destination. This is the main distinction made with tourists (IRTS 2008, para.2.13).

While this distinction makes sense for the estimation of paid nights and the full calculation of the economic benefits for the host destination, it does not necessarily imply major differences in the visitor's activities. Indeed, whether with or without overnight stay, the excursionist and the

tourist are two visitors who can present extremely similar profiles in terms of motivations to come and activities (discovery of high places, participation in fairs and events) and types of consumption (purchases of tourist guidance services, purchases of private transport services, food purchases in CHR, coffee hotels and restaurants, or VAE, takeaway sales, souvenir purchases).

The perimeters of the tourist's characterization

The key elements to be taken into account to distinguish the tourist from other travellers are therefore the trip that refers to the spatial perimeter, the duration of the trip that refers to the temporal perimeter, and the function of the trip that refers to the activities and motivations of the visitor. After placing these three criteria in the process of distinguishing the tourist from other travellers, the implications of these three perimeters are detailed.

Three criteria to distinguish the tourist from other travellers

The French version of the glossary of statistical measurement elements for tourism is entitled "comprendre le tourisme" (OMT, 2008). In his introduction, he recalled that "tourism is a social, cultural and economic phenomenon that involves the movement of people to countries or places outside their usual environment for personal, professional or business purposes. These people are called visitors (and can be *tourists* or *excursionists*, residents and non- residents) and tourism refers to their activities, some of which involve *tourism spending*.

We are talking about tourists and excursionists, but also residents and non-residents. To capture what distinguishes them from each other, and taking into account the four fundamental statistical units of the traveller, visitor, tourist, and excursionist, Figure 1 shows the importance of the following elements: 1) the movement of the place where one usually lives (*i.e. where* we are considered inhabitants), 2) the reason for this trip and, in particular, the fact of not being forced or wishing to leave this place permanently, and 3) the duration of this trip, in terms of *maximum duration* (3a) to differentiate between the tourist and the resident, and *minimum duration* (3b) to identify excursionists among tourists.

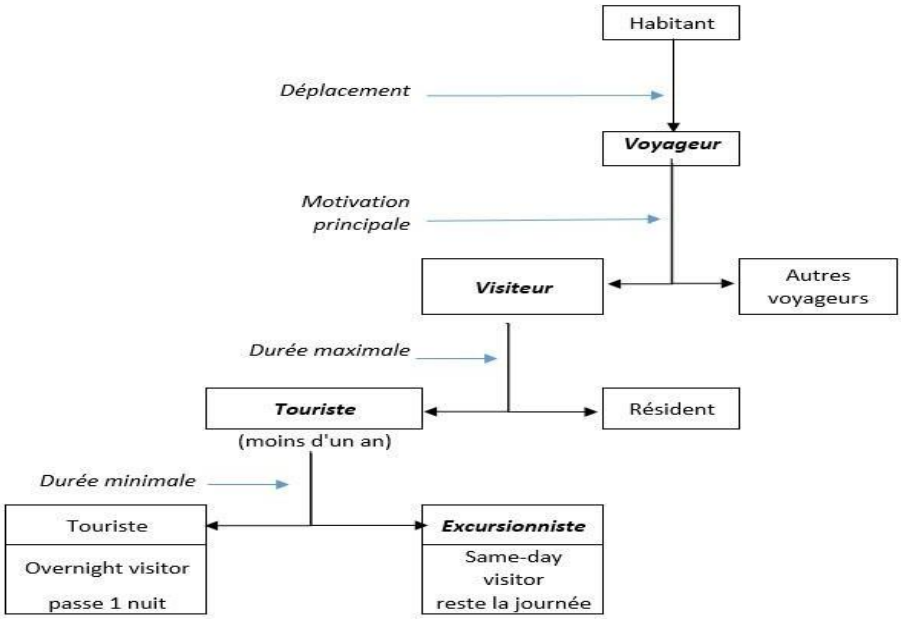


Figure 1. How to move from being a resident to being a tourist?

From concepts and classifications to fluctuating indicators

As already noted, the UNTWO definitions are based on concepts and classifications aimed at differentiating tourism flows and activities from other migratory flows and at assessing the importance of the tourism-related labour market. Thus, taking into account the classifications and indicators used for other economic activities, it is necessary to be able to incorporate the measurement of tourism into all countries' national accounts and to promote the comparability of results between nations.

However, these international harmonization efforts are hampered by the reality of local diversity. Indeed, there are sometimes major disparities between countries, in population density, accessibility to transport modes, cultural behaviour, and distances between administrative and national borders. For example, the distances to be covered when travelling in Cyprus, the United States or Finland are not easily comparable, neither in terms of distance per kilometre, nor even in terms of travel time (especially if the weather of the season has an impact on travel times and modes). Therefore, the criterion of distance in kilometres may not be of any use in characterizing the *usual environment*, one of the concepts essential to the definition of a tourist.

As an illustration, Table 2 presents the variations identified by the Ministry of Tourism of Egypt on the criteria that are used to define what this concept of "*the usual environment*" means. It shows that each country defines this concept in a specific way. Sometimes, the specification is a single criterion. Sometimes it is multi-criteria. Although using a unifying concept, the criteria used to operationalize this same concept are different from one country to another.

The necessary variability of indicators to adapt to each country

As already noted, the proposed and internationally appropriate definitions recommend that the same concepts be used. Thus, let us recall here the definition (IRTS 2008, para. 2.9 and para. 2.13) which stipulates that one is a tourist if one is "*a visitor* who *spends less than one year and more than one night* at destination, i.e. that one is a *traveller* who moves to a

Table 2. Different choices in the criteria used to define the same concept from the definition of tourist

The criteria used to define the concept of the usual environment					
Country	***Distance (in km)***	***Administrative borders***	***Respondents' self-assessment***	***Frequency of visit***	***Duration (in hours)***
South Africa	50				
Germany		√	√		
Saudi Arabia	80			Once a month	
Austria		√	√	twice a month	
Chile				once a week	
Cyprus	50			Daily	
Spain			√		
United States	80-120				
Finland				once a week	
France	100		√		
Indonesia	100	√	√		
Ireland			√	once a week	
Israel			√		5
Latvia		√	√	Daily	
Netherlands					2
Portugal			√		
Czech Republic		√	√	once a week	3
United Kingdom					3
Slovenia	50			10 times for 3 months	
Sweden	50				
Switzerland			√		4

main place which is *different from one's usual environment*". However, the establishment and operational specification of these different concepts are not always identical from one country to another. On the contrary, they can fluctuate, which necessarily has an impact on the final qualification of who is a tourist.

But then, if the operationalization of the concepts of the tourist definition varies from one country to another, how can we be sure that the tourist is defined in a harmonized way at the international level? Can we really compare the statistical results of different countries? More generally, can we rely on these definitions?

The answer to this essential question of the reliability of international definitions of tourist is fortunately positive. Indeed, although worrying at first sight, the national variability of the indicators for the technical implementation of the characterization of the mobilized concepts is in fact a guarantee of finesse in the local granularity of the international definition of the tourist.

If we take again the example of the comparison between Cyprus, the United States and Finland, the distance per kilometre makes sense in the United States where roads are generally accessible all year round and where both motorway and car equipment are important when, on the other hand, the criteria used will add a notion of daily regularity of travel for Cyprus, and prefer the notion of weekly frequency for Finland only.

Thus, each country offers criteria adapted to its geomorphological originality, but also to the cultural habits, residential leisure practices and the usual forms of local mobility of its inhabitants. This is particularly relevant for considering global studies on international tourist activities (*i.e. taking into* account what is technically possible to do in each destination according to its local characteristics) but also for comparisons of the practices and performances of domestic tourism (*i.e. taking into* account what is recurrent to find in the holiday and tourist practices of the different countries and geographical areas considered).

In conclusion, behind the variability of the indicators used by each country, there is always the ambition to have locally relevant information to find the meaning associated with the concepts underlying the international definition of tourist. In the case of the *usual environment* (Table 2), all countries have endeavoured to identify criteria that would enable them not to assimilate the tourist to a resident, and to be assured that the host

destination is indeed different from that of a place of customary life. Even if it is expressed differently in each country, this idea of the unusual, which is based on the observation that there is always a part of the quest for an alternative place symbolically different from the tourist's daily life (Boyer, 2011), is therefore always well taken into account.

The researcher and the practitioner can therefore rely on the statistical definitions and operationalizations, as designed by UNTWO, for their work and studies since they effectively make it possible to find the important characteristics of the tourist.

The stability of the three perimeters to be considered to characterize the tourist

Qualified here as perimeters since they allow the tourist to be located in relation to other residents and inhabitants and in relation to other travellers, the consideration of three elements allows a tourist to be well characterized. Insofar as these three elements have always been used to describe a tourist (Boyer, 2005), and insofar as these three elements remain stable and valid in all countries of the world, they represent the opportunity to consider ontologically the status of tourist.

These three perimeters are: 1) the spatial perimeter with the notion of *displacement*; 2) the temporal perimeter with the notion of the *duration of the* displacement, and 3) the functional perimeter. The latter perimeter refers to the function of travel for the traveller, i.e. the *motivations* for his or her travel and the *activities* he or she engages in during the trip.

Their consideration allows for a shortened qualification, or even an ontology of the "tourist being", which could be the following: the tourist is an individual, from elsewhere, who will not settle down, and who acts in a particular way on the spot.

We specify below these three perimeters and what we must try to capture beyond the variations in the indicators for those who want to carry out studies and research on tourism as a social and cultural fact. The goal is thus to ensure that participants are selected who are indeed individuals with the distinctive characteristics of what a tourist is.

Spatial perimeter: from the country of residence and the usual environment to the measurement of incoming and outgoing flows

The founding concepts used in tourism statistics, which reflect the spatial dimension, are the terms "reference country", "country or place of usual residence", "principal residence" and "nationality".

Be outside the place of residence and the usual environment

These concepts in relation to the residence make it possible to classify visitors according to their place of origin and therefore to specify the different forms of tourism. A clear distinction must be made and the notion of place of residence must be given priority over that of nationality. Nationality refers to the information available on the passport or other administrative document. Conversely, the place of usual residence, or principal residence, is the geographical location where the person resides most regularly. This concept is less definitive and more flexible than that of nationality.

A step further, the notion of the individual's usual environment, a key concept to define the tourist that we have already mentioned, refers to the geographical area, which is not necessarily continuous, within which the individual carries out the routines of a regular life.

It is therefore the fact that the individual is spatially outside the geographical spaces associated with the regularity of a routine rhythm of life that allows him/her to be granted the status of a tourist.

This characterization by the spatial perimeter **outside its usual environment** aims to exclude from the tourism accounts, individuals who travel in a monotonous and usual way to go from their place of life to their place of employment or study, and, more generally, all those who travel frequently, whatever the spaces considered, according to a routine logic (whether to see their family, go to commercial, medical or religious areas). This applies even if the distance covered is substantial. The usual environment therefore includes the family living space, but also the employment and study areas and all other places visited on a regular basis. One of the purposes of this qualification is to exclude from tourist counts all cross-border workers and all travellers who make round trips for work and study.

Holiday homes and second homes

Imagine French retirees who spend most of the year in Morocco to enjoy a milder climate. Throughout this winter period, their usual and routine place of residence is Morocco and no longer

France. Two questions arise here: what is the main place of residence, and how to locate travel to holiday homes?

The issue of principal residence is easy to address since it is sufficient to know where they spend the most time in a year, i.e. at least 6 months and 1 day. Thus, while the concept of the principal residence is primarily spatial, it appears that its practical operationalization requires the introduction of the temporal dimension since the principal residence is where the person spends most of the year.

The issue of holiday homes is more complex since it is a special case of regular travel. Indeed, since these houses and second homes are the object of periodic and recurrent travel, should they be integrated into the usual environment and excluded from tourist trips?

The expenses and activities related to stays in these holiday homes and other second homes appear specific. Therefore, the statistical authorities recommend, to date, to count them as tourist trips but to ensure that they are distinguished within these tourist trips. For example, in France, by convention, travel to a secondary residence is considered to be tourist travel outside the usual environment (Mémento du Tourisme, 2017).

From a practical point of view for the researcher and practitioner, this means that it is important to ask respondents to specify what their accommodation is: Is it a family or secondary residence? Is it a dwelling that he regularly occupies and how many days does he spend there per year?

Finally, in the current context of innovative forms of residential sharing or free accommodation (see *couchsurfing*), it may be important to cross-reference tourist flow data with data on holiday accommodation at the destination level. Even if this information may seem remote from the initial investigation project, asking about the accommodation chosen is ultimately an important factor to be taken into account in any study aimed at understanding and explaining tourist behaviour.

International inward and outward flow accounting

Among the data related to the spatial perimeter, nationality makes it possible to measure international arrivals. This involves calculating the number of tourists from other countries returning to a given country. On a global scale, this makes it possible, among other things, to identify the most important receiving areas and their evolution in terms of attractiveness (see Figure 2).

It should be noted that these assessments made at the entrance to a national territory do not represent the number of international visitors but the number of national borders crossed by all visitors. Thus, a German citizen who crosses France by car for a holiday in Spain will be counted twice as an international arrival for France. And this, even if he only transits without staying in France. He will be counted once when he travels from Germany to Spain, and a second time at the end of his holidays when he returns from Spain to Germany.

International tourist arrivals are therefore somewhat biased data that should be considered with caution. What about the real economic benefits of some international arrivals? What relevance would it have to consider development strategies for tourist reception if we were to rely solely on these data?

Tourism typologies resulting from the spatial perimeter

More generally, concepts related to the spatial perimeter make it possible to distinguish the three forms of reference tourism which are:

a. Inbound tourism (inbound tourism). It includes activities related to travel within the site, travel made by non-resident visitors to that reference site.

b. Outbound tourism (outbound tourism). It includes the activities of visitors residing in the reference place when they travel outside that reference place.

c. Domestic tourism (or domestic tourism). It includes the activities of a visitor who is a resident of the reference place when travelling within that reference place.

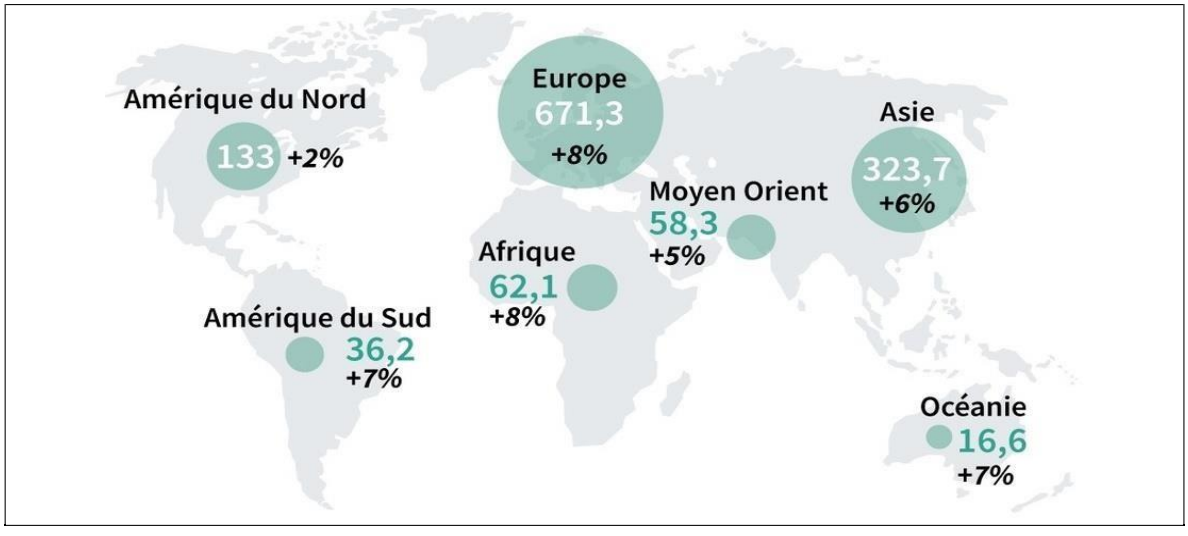


Figure 2. International tourist arrivals in 2017 (in millions) and change from 2016 (in %) (AFP UNTWO)

By extension, **international tourism** includes incoming and outgoing tourism. **Domestic tourism** includes domestic (resident) and incoming (non-resident) tourism. Finally, **national tourism** includes domestic and outgoing tourism: the activities of resident visitors during their tourist trips in their reference country and activities related to their tourist trips outside their reference country.

The temporal perimeter: Temporary residence (more than one night and less than one year)

As shown in Figure 1, the temporary nature of the trip is an essential factor in characterizing the tourist. More than one night and less than one year are the consensus rules now systematically applied. These temporal boundaries make it possible to separate tourist visitors from migrants who do not plan to return to their initial place of main residence.

However, a finer temporal granularity than this broad boundary, which ranges from one day to one year, is often useful in order to be able to categorize tourist visitors in order to consider truly adapted reception and development strategies.

Indeed, depending on the duration of travel and stay, visitors' behaviour changes. During the first few days, foreign to the area and unaware of local customs and habits, visitors have needs for assistance and expectations that will evolve as they become accustomed to and immersed in the visiting environment. What is of the order of the unusual will gradually transform into a form of second habitual environment. From then on, their behaviour will change and no longer be that of a first-time visitor.

Therefore, even for visitors who no longer have a principal residence in the administrative sense, the concept of principal residence makes it possible to define what their reference location is. And even for *digital nomads*, who could be classified as professional holidaymakers (or professionals still on holiday...) since they move from *coworkation* to *coworking* areas all over *the* world all year round (Marinos *et al.*, 2019), it is possible to identify their main place of residence from the area and country in which they have stayed the longest over the past 12 months. It is true, however, that these new professional practices and employment relations question international classifications on tourist travel.

The functional perimeter: The activities and motivations of the tourist

Faced with the complexity of the tourism object, Georges Cazes (1992) stresses the importance of taking into account the functions of tourism for the traveller. The last of the three principles that distinguish tourists from other travellers and visitors is therefore that of motivations and activities (*i.e.* the functional perimeter).

Indeed, in relation to the expectations he places in his trip and taking into account the reality of his practices during the trip and stay, the tourist adopts a different behaviour from other travellers. Its buyer profile and consumption are specific. And behavioural differences are expressed in the choice of activities. Among these, among others, there is a part, sometimes minimal but almost always present, of research to discover local culture.

It is in this logic of qualifying the tourist by his practices during the trip that the concept of "main reason for the tourist trip" has been proposed. It should be considered that, without this main reason, there would not have been any travel (IRTS 2008, para. 3.10.).

Beyond the positive list of personal reasons and goals that may govern the intention to travel (see Box 1), it is also necessary to highlight the criterion that excludes from tourist status. This excluding criterion is that of having an employer-employee relationship with an entity resident in the destination visited. A seasonal employee may behave in a similar way to a tourist since, during these holidays, he or she may seek to discover the local culture and visit the tourist highlights of the place of employment. While, in this respect, it seems appropriate to associate it with tourists to study their common expectations of discovering local heritage and culture, by convention, it is now considered that a seasonal employee should never be considered and measured as a tourist.

As already mentioned above, this criterion of the relationship to employment is undoubtedly the one that could in the future be called into question or, at least, re-defined and adapted to match current and future developments in forms of work. Finally, in order to consider strategies to enhance the attractiveness of destinations that are perfectly adapted to the specificities and expectations of the targeted visitors, according to a segmented marketing approach (Petr, 2015), in addition to the main reason for travel, it is

necessary to identify and also consider the secondary activities carried out by tourists. This is particularly relevant for studies aimed at managing the attractiveness of the destination.

Box 1 -The main reason for a tourist trip

The main reason for a tourist trip is defined as the **main reason why the trip would not have taken place without it**.

A tourist is a visitor (domestic, entering or leaving the country or place in question) who comes for any reason whatsoever: business, leisure or other personal purposes.

The 9 categories of the tourist travel classification:

1. Business and professional reasons (meetings, conferences or congresses, trade fairs and exhibitions, and other business and professional reasons)
2. holidays, relaxation and leisure (in English, the notion of "*recreation*" is added, which suggests a practice in natural spaces)
3. visit friends and relatives
4. education and training
5. health (thermalism, thalassotherapy,etc)
6. religion and pilgrimages
7. shopping
8. transit
9. other reasons

CONCLUSION

It can be conclude that contextualized and recalled the definitions of tourists based on the recommendations made since IRTS 2008 by the supranational organization for the promotion of tourism on a global scale (UNTWO).

These reminders were an opportunity to highlight the importance of allowing nations flexibility in the operationalization of the criteria to be mobilized for the founding concepts used to define tourists. It is important that each country be able to adapt, to its regional and national originality, the technical implementation of the concepts underlying the statistical measures of tourism. The *prerequisite* for this local flexibility is that the principles and meaning of these internationally defined concepts are well understood and uniformly shared.

In addition, the mention of the different perimeters to be considered highlighted some traveller configurations that need to be carefully examined during studies and research, such as retirees, cross-border workers or seasonal employees. This vigilance ensures that volume and flow measurements are accurate, and that subsequent assessments of the significance of the economic, social

and cultural impact potentially induced by tourism activity are not underestimated or, on the contrary, overestimated. Beyond these guarantees of good estimates, taking into account the ideas underlying these perimeters also provides the certainty of carrying out valid sampling for research work on tourist populations.

In perspective, we suggest that readers, researchers and practitioners consider and mobilize more subjective dimensions to assign an individual the status of tourist, in addition to the objective categories already used, spatial, temporal and by activities. These subjective complementary measures include, on the one hand, mental representations relating to the imaginary of the tourist character (*i.e.* the figure of the tourist), and on the other hand, those dealing with the "feeling of being (or not) a tourist" and individual acceptance or denial of being a tourist. Thus, among those who can, objectively and statistically, be classified in the "tourist" box, who really perceives themselves as tourists? What does this mean for him?

Considering this theme of representations of the tourist and being a tourist, it is a question of studying the tourist phenomenon from the point of view of the person who lives this travel experience, *i.e.* the tourist, but also from the point of view of the person who receives this visitor, *i.e. the* habitant. The study of dyadic relations between tourists and inhabitants seemed to be reserved for executives from distant and developing countries, subject to the pressure of tourist arrivals sometimes perceived as intrusive or colonialist. This problem seems to be spreading today to the Western world, which is nevertheless used to tourism (Martinez-Garcia, Raya, Majó, 2016; Petr, 2018).

In view of the continuous growth and unfailing resilience of tourism (Babu and Callot, 2019), and in view of the various anti-tourism measures or reactions recently expressed by inhabitants of various key destinations in Europe such as Barcelona, Dubrovnik, Venice, or even Bordeaux, etc., could the issue of tolerance and the feeling of tourist invasion by the inhabitants of old Europe become an investigation subject that will soon become impossible to ignore?

REFERENCES

Boyer M. (1972), *Le tourisme*, Le seuil, Paris.

Boyer M. (2005), *General History of Tourism from the 16th to the 21st Century*, L'Harmattan.

Boyer M. (2011), *Ailleurs : Histoire et sociologie du tourisme*, L'Harmattan. Babou I. and Callot P. (2019), *Tourism: Stop or even?* Les Editions Baudelaire, Lyon.

Cazes G. (1992), *Fondements pour une géographie du tourisme et des loisirs*, Edition Bréal, Paris.

Demen-Meyer C. (2005), Tourism: Essay on definition, Management & Future, 1(3), 7-25.

Marinos C., Mahéo C., Gourlay F. Petr C. (2019), When co-working is no longer enough, we go further! Exploratory study of the quarters, *17th Seminar of Marsouin, Usages & NTIC, Rennes* (35), 23-24 May.

IRTS 2008 Compilation Guide (2016), *International Recommendations for Tourism Statistics 2008 Compilation Guide*, Department of Economic and Social Affairs, Statistics Division, Studies in Methods, United Nations Publication, ST/ESA /STAT/SER .M/94, New York.

Leiper N. (1993), The framework of tourism: towards a definition of tourism, tourist, and the tourist industry, *Annals of Tourism Research*, 4(6), 390-407.

Liburd J.J (2002), Tourism in a global society, *Annals of Tourism Research*, 23(5), 882-884.

Martinez-Garcia E., Raya J.M. et Majó J. (2016), Differences in residents' attitudes towards tourism among mass tourism destinations, *International Journal of Tourism Research*, 19, 535-545.

UNWTO (2008), *Understanding Tourism: Basic Glossary*, Accessed online June 21, 2019: http://cf.cdn.unwto.org/sites/all/files/docpdf/glossaryfrrev.pdf.

Petr C. (2018), Why is tourism unloved? Why do we have to justify tourism? Discussion on the disenchantment of the journey of the Other, *Les Hippocampes du Golfe du Morbihan*, Vannes, University of South Brittany, 8 November 2018. Petr (2015), *Le marketing du tourisme*, Dunod, Paris.

PY P. (2007), *Le tourisme : un phénomène économique*, La Documentation Française, Paris.

Williams S. (2004), *Critical concepts in the social Sciences: Tourism*, Routledge, London.

Analysis of Suitability and Carrying Capacity of Mangrove Ecotourism in Sedari Village, Karawang District

Wildan Dhya Ulhaq Hidayat[1], Indah Riyantini[2], and Wahyuniar Pamungkas[2]

[1]Student Study Program of Marine Sciences, Faculty of Fisheries and Marine Sciences, University of Padjadjaran
[2]Departement Study Program of Marine Sciences, Faculty of Fisheries and Marine Sciences, University of Padjadjaran

Corresponding Author: wildandhya15@gmail.com

ARTICLE INFO

Received
28 November 2019

Accepted
28 January 2020

Available online
31 March 2020

ABSTRACT

Mangrove nature tourism Sedari Village is an ecotourism location that has the potential to be developed with natural resources that are still awake and an area of mangrove forests around 49.20 Ha. However, in its management, it still does not pay attention to the principles of ecotourism regarding the suitability and carrying capacity for ecotourism. The purpose of this study is to determine the potential in the mangrove nature tourism Sedari Village and assess the suitability and carrying capacity. The method used in this research is survey method and descriptive - quantitative analysis. The results obtained in the mangrove nature tourism Sedari Village there are 4 types of mangroves, namely *R. mucronata, R. stylosa, S. alba and A. marina* with a mangrove density of 2.055 ind / ha then found 4 types of biota and 2 species namely mullet fish, milkfish , mangrove crabs, little egrets and monitor lizards. For the tourism suitability index value obtained 73% which is included in both the category and the physical carrying capacity obtained 32,800 people / day, the real carrying capacity is 25,047 people / day and the ecological carrying capacity is 26.65 ha. ecological carrying capacity for bridge *tracking* tourism activities obtained by 55 people / ha and *bird watching* tourism activities obtained by 165 people / ha.

Keywords: mangrove, ecotourism suitability, ecotourism carrying capacity

INTRODUCTION

Mangrove forests are typical ecosystems in coastal areas that have natural beauty and the environment in the form of components of the ecosystem consisting of vegetation, biota or organisms, wildlife and the surrounding environment. According to the Department of Forestry (1996), mangrove ecosystems have three functions such as physical functions, namely being able to protect coastlines from abrasion, biological functions, namely as a place to find food and breed for fish, shrimp, shellfish, crabs, and other marine biota, and economic functions namely as a place for aquaculture ponds, places for taking wood and tourist attractions. This dewasi, the pressure of decline in mangrove ecosystems continues to occur. Based on a press release from the Ministry of Environment and Forestry, many stated that in 2018 Indonesian mangroves suffered damage of 1.81 ha (Republika.co.id 01-01-2018). The decline in mangrove forests is one of them caused by anthropogenic factors or human activities (Amal, 2018). Utilization of mangrove ecosystems should be able to pay attention to the protection of mangrove ecosystems from damage so that their utilization can be sustainable.

Ecotourism is one form of utilization that emphasizes the principle of conservation. Ecotourism itself is a form of tourism to natural areas which is carried out with the aim of conserving the environment and the welfare of the local community (Fandeli, 2000).

Mangrove nature tourism in Sedari Village is a mangrove ecotourism located in Karawang Regency which has an area of about 49.20 ha of mangrove forest with a beautiful mangrove forest landscape. The condition of mangrove forests in the natural tourism of Sedari mangroves is still well maintained and organisms that live in association with mangroves can still be found such as crustaceans, reptiles and birds.

Mangrove nature tourism in the new village of Sedari stands and in its use is still less than optimal. According to Wati & Idajati (2017), changes in conservation areas becoming ecotourism results in a decrease in environmental quality. The decline in the quality of the ecotourism environment is caused by management that does not pay attention to the suitability and carrying capacity of the

region (Hermawan, 2015) in (Wati & Idajati, 2017). Therefore, research is needed regarding the suitability and carrying capacity of mangrove ecotourism in Sedari Village so that its management does not cause damage to the mangrove ecosystem itself.

This study aims to determine what the potential contained in the mangrove ecotourism Sedari Village and assess the suitability and carrying capacity.

METHOD

This research was conducted in Sedari Village, Karawang Regency, geographically located at 5 ° 59'38.41 "S and 107 ° 18'0.85" E (figure 1). Determination of the station is done by purposive sampling method as many as 4 station points. The determination of the station is based on the consideration of the thickness of mangroves at each station. The method used in this research is survey method and descriptive - quantitative analysis.

The tools used for data collection in the field are roll meter, rapia rope, meter, Global Positioning System (GPS), camera stationery and mangrove identification book and natural biota.

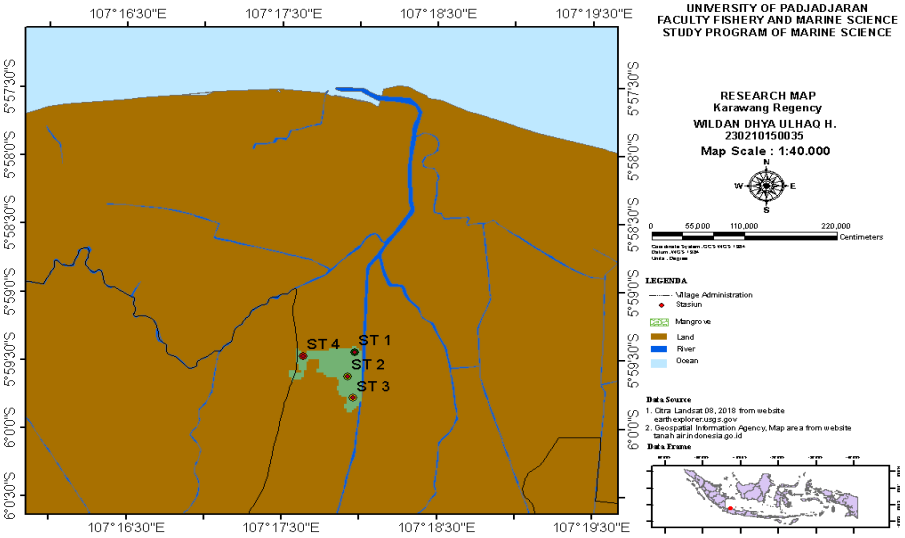
Research procedure

Preparation

Field observations, station determination and literature studies regarding the condition of the research location.

Data retrieval

The data taken is mangrove thickness data, the method used is to be measured directly using a roll meter at a predetermined station. Mangrove type and density data are taken using the quadrant transect method. For biota object data taken using the direct observation method.



Picture 1. Research Location Map

Data processing

Mangrove density (Onrizal, 2008)

Density (K) =

$$\frac{\text{Number of individuals of a type}}{\text{The entire plot area}}$$

Relative Density (KR) =

$$\frac{\text{density of a type}}{\text{density of all types}} \times 100\%$$

The diversity of species of shannon - wienner (Onrizal, 2008)

$$H' = -\sum pi \ln (pi)$$

Information:

H' = Type diversity index

*n*i = Number of Individual Type i

*P*i = *ni* / *N*

N = Total Individuals of All Types

Data analysis

Ecotourism Suitability Matrix

Calculation of suitability of Ecotourism based on the formula Yulianda (2007), namely:

$$IKW = \sum (N_i / N_{Max}) \times 100\%$$

Description :

IKW = Tourism Suitability Index;

Ni = keI parameter value (weight x score);

Nmax = Maximum value of a category

Carrying Capacity of Mangrove Ecotourism

Analysis of mangrove ecotourism carrying capacity includes physical carrying capacity, real carrying capacity and ecological carrying capacity (Douglass, 1975).

Physical carrying capacity **(PCC)**

$$PCC = A \times \frac{1}{B} \times Rf$$

Information :

A = Area used for tourism

B = Area required by a tourist to travel

Rf = rotation factor (Rf) is the number of daily visits allowed to a location formulated by the formula

$$Rf = \frac{\text{visiting period}}{\text{long visiting}}$$

Table 1**.** Ecotourism Suitability Matrix

No	Parameter	Weight	S1 Cateory	Score	S2 Category	Score	S3 Category	Score	N Category	Score
1	Mangrove Thickness (m)	5	>500	4	>200-500	3	50-200	2	>50	1
2	Mangrove Density ($100m^2$)	4	>15-20	4	>10-15	3	5-10	2	<5	1
3	Mangrove Type	4	>5	4	3-5	3	1-2	2	0	1
4	Biota Objects	3	>4 Species	4	3 Species	3	2 Species	2	1 Species	1

Real carrying capacity (RCC)

$$RCC = PCC \times \frac{100-Cf1}{100} \times \frac{100-Cf2}{100}$$

Information:

RCC = real carrying capacity

PCC = physical carrying capacity

Cf = Correction Factor

Ecological carrying capacity

$$AR = \frac{D \times A}{CD \times Tf \times 43560}$$

Information :

AR = Area required for travel

D = Number of tourists

A = area needs of each tourist

CD = Number of days used for traveling

Tf = recovery factor

43,560 = Constants

RESULTS AND DISCUSSION

Mangrove Density

The density of mangroves in mangrove nature tourism in Sedari Village is presented in table 2.

Table 2. Mangrove Density

Station	Type	Tree K (ind/ha)
1	*R.mucronata*	400
	S.alba	
2	*R.mucronata*	855
	S.alba	
3	*R.stylosa*	480
	S.alba	
4	*A.marina*	320
	R.mucronata	
	A.marina	
	R.mucronata	
Total		2.055

Based on the table above the types of mangroves found in mangrove nature tourism in Sedari Village obtained 4 types namely *Rhizopora mucronata, Rhizopora stylosa, Sonneratia alba and Avicenia marina* With the diversity value of mangrove species obtained H '1.1 which is included in the low category.

The density of mangroves in the natural tourism of the village of Sedari obtained 2,055 ind / ha. Based on the standard and mangrove damage of the Ministry of Environment No. 201 of 2004 the density of mangroves in the natural tourism of the Mangrove Village of Sedari is included in good condition with a very dense density.

At each observation station there is a difference in density which shows the level of adaptation patterns and human influence on the mangrove ecosystem. In the mangrove nature tourism in the Village Sedari mangrove species Rhizopora *mucronata and Rhizopora stylosa* are found in the area near the river. This is according to Noor et al (2006), that *Rhizopora spp* grows in groups, near river embankments and river mouths. *Sonneratia alba* mangroves are also found near streams. According to Sukardjo & Sukristijono (1984). *Gonneratia alba* colonized and was found near the mouths of rivers or near large rivers. Then the types of types of *Avicenia marina*

Biota Objects

Objects of biota in the mangrove nature tourism of Sedari Village were found 4 species and 2 species of biota namely mangrove crab *(Scylla serrata)*, small egret *(Egretta garzetta)* monitor lizard *(Varanus salvator)* and fish species found 2 species namely mullet fish *(Valamugil engeli)*, fish banding *(Chanos-chanos)*,

Mangrove crabs are often found under mangrove roots in small holes. As According to Rahayu et al (2017) mangrove crabs like mangrove vegetation which has a strong mangrove root system. Mangrove crabs will form small holes under the roots of mangroves as a shelter and find food.

Mulletfish and milkfish are commonly found in mangrove areas that have water-submerged substrates which are former semi-intensive pond management areas. Mullet fish is one of the inhabitants of mangrove waters (Puteri et al 2017). Huang et al (2016) in Puteri et al (2017) further explained that fish from the *Mugilidae* family have a distribution in the mangrove area and these fish can live in a wide range of salinity because they can live in freshwater, brackish water and the sea. The appearance of milkfish in the mangrove area is thought to be a result of the remaining ponds.

The small egret bird in the mangrove nature tourism in Sedari Village was found in the twig of the mangrove tree with a very large number. Elfidasari and Junardi (2005), the abundance of birds in an area is caused by the availability of food. Mangrove nature tourism in Sedari Village has an area that is close to the area of fish ponds so people are not surprised that many herons are found in the area.

Lizards are also found in mangrove areas with water-submerged substrates. The emergence of monitor lizards is thought to originate from a river that is

adjacent to tourism the mangrove nature of Sedari Village. As According to Byer (1999) in Gumilang (2001), monitor lizards are aquatic animals that can be found in water sources such as along rivers, swamps or mangrove debts. Iyai and Pattiselano (2005) further explained that monitor lizards perform in swamp forests because habitat types for monitor lizards are easier to find prey.

Conformity Analysis of Mangrove Nature Tourism

The value of the suitability index of mangrove nature tourism in Sedari Village can be seen in table 3.

Table 3. Value of IKW Mangrove Nature Tourism in Sedari Village

No	Research Sites	IKW	Information
1	Station 1	79 %	S2 (appropriate)
2	Station 2	70 %	S2 (appropriate)
3	Station 3	76 %	S2 (appropriate)
4	Station 4	68 %	S2 (appropriate)
	Average	73%	S2 (appropriate)

Based on the above table the value of tourism suitability index obtained from four stations shows that the mangrove nature tourism of Sedari Village is included in the category according to the IKW value of 73%. These values indicate that the mangrove nature tourism of Sedari Village can be developed with the potential of its resources, but in its management must pay attention to several things such as diversity of mangrove species, diversity of biota species and thickness of mangove which has a low score value. Mangrove thickness is an important thing that must be considered because it has a litter-producing role for biota so that when mangrove thickness is high, the number and type of biota is also high.

Carrying Capacity of Mangrove Village Sedari Nature Tourism

Physical carrying capacity

Physical carrying capacity is a calculation to find out the number of visitors to get physical comfort while traveling. According to Douglass (1975) the area required for each visitor to travel is 60 m2. So that the physical carrying capacity in the mangrove nature tourism of Sedari Village is 32,865 people / day.

Real carrying capacity

Real carrying capacity aims to determine the carrying capacity in real terms by using two correction factors, namely rainfall and diversity of mangrove species. These two correction factors are used because they are related to the level

of tourist visits to mangrove nature tourism in Sedari Village.

The real carrying capacity in mangrove nature tourism in Sedari Village obtained 25,124 people / day. The results of the real carrying capacity when compared to physical carrying capacity are still smaller or in other words that mangrove nature tourism in Sedari Village can still accommodate tourists who visit.

Ecological carrying capacity

Ecological carrying capacity is a calculation to determine the area of ecological tourist areas that can recover naturally. So by knowing the value of its ecological carrying capacity, mangrove ecosystems in the natural tourism area of mangroves in Sedari Village can be avoided from damage due to tourism activities.

The ecological carrying capacity of 26.65 ha. Mangrove nature tourism in Sedari Village, there are two tourism activities that can be calculated ecological carrying capacity, namely tracking bridges with an area of 1 ha and carrying capacity of 55 people / ha, then bird watching with an area of 3.35 ha and ecological carrying capacity of 165 people / ha.

CONCLUSIONS AND SUGGESTIONS

Conclusion

Ecotourism potential found in mangrove nature tourism in Sedari Village is 4 types of mangroves including *Rhizopora mucronata, Rhizopora stylosa, Sonneratia alba and Avicenia marina* with a total vegetation density of 2,055 ha. In the mangrove nature tourism area, Sedari Village found 4 species and 2 species of biota, namely mangrove crab (*Scylla serrata*), little egret *(Egretta garzetta), monitor lizard (Varanus salvator*) and fish species found 2 species namely mullet fish (*Valamugil engeli*), fish milkfish (*Chanos - chnos*).

The tourism suitability index in the mangrove nature tourism area of Sedari Village is included in the category according to the IKW value of 73%. While the carrying capacity in the mangrove nature tourism area of Desa Sedari for physical carrying capacity is 32,800 people / day, the real carrying capacity is 25,047, the ecological carrying capacity is 26.65 ha. In the mangrove nature tourism, Sedari Village has a tourist activity that can be calculated its ecological carrying capacity, namely tracking bridges with a carrying capacity of 55 people / ha and for bird watching with a carrying capacity of 165 people / ha.

Suggestion

Based on the results of this study further research can be done on Fauna in the mangrove nature tourism of Sedari Village and in determining the carrying capacity of the correction factors used in this study only using biotic and abiotic factors so that in the future in determining the carrying capacity can include psychological factors of the community and visitors, social and economic factors.

REFERENCES

Amal, A. (2018). Factor That Influence The Change Of Mangrove Forest in South Sulawesi Indonesia. *UNM Geographic Journal*, 97-98.

Departemen Kehutanan dan Perkebunan RI. (1996). *Manual Silvi kultur Mangrove*. Jakarta: PT. Krisna Intervisi Media.

Douglass, W. (1975). *Forest Recreation 2.* New York: WW Norton and Co. PP.

Efidasari, D., & Junardi. (2005). Keragaman Burung Air di Kawasan Hutan Mangroe Peniti Kabupaten Pontianak. *Biodiversitas*, 64-65.

Fandeli, C. (2000). *Dasar-Dasar Manajemen Kepariwisataan Alam.* Indonesia : Yogyakarta.

Gumilang, R. (2001). *Populasi dan Penyebaran Biawak Air Asia (Varanus salvator) di Suaka Margasatwa Pulau Rambut, Jakarta.* Bogor: Institut Pertanian Bogor.

Iyai, D. A., & Pattiselano. (2006). Diversitas dan Ekologis Biawak (Varanus indicus) di Pulau Pepaya Taman Nasional Teluk Cendrawasih, Irian Jaya Barat. *Biodiversitas*, 185-186.

Noor, Y. R., Khazli, M., & Suryadiputra, I. (2006). *Panduan Pengenalan Mangrove di Indonesia.* Bogor: PHK/WI-IP.

Onrizal. (2008). Teknik Survey dan Analisa Data Sumberdaya Mangrove. 4-7.

Puteri, D., Sitorus, H., & Muhtadi, A. (2017). Keragaman ikan di Perairan Ekosistem Mangrove Desa Jaring Halus Kabupaten Langkat, Sumatera Utara. *Jurnal - Jurnal Ilmu Perairan, Pesisir dan Perikanan*, 148.

Rahayu, S., Wiryanto, & Sunarto. (2017). Keanekaragaman Kepiting Biola di Kawasan Mangroe Kabupaten Purworejo Jawa Tengah. *EnviroScienteae*, 72-74.

Republika.co.id. (2018, 01 10). *Kementrian LHK Sebut 1.81 Juta Hektare Mangrove Rusak*. Retrieved from https://www.republika.co.id/berita/ekonomi/makro/18/01/10/p2bu1r382-kementerian-lhk-sebut-181-juta-hektare-mangrove-rusak

Sukardjo, & Sukristijono. (1984). Ekosistem Mangove. *Oseana Volume IX (4)*, 102-115.

Wati, M. W., & Idajati, H. (2017). Identifikasi Karakteristik Pengelolaan Ekowisata Mangrove Wonorejo Berdasarkan Prefensi Stakeholder. *Jurnal Teknik ITS Vol 2*, C575-C576.

Yulianda, F. (2007). Ekowisata Bahari Sebagai Alternatif Pemanfaatan Sumberdaya Pesisir Berbasis Konservasi. *Makalah Seminar Sains.* Bogor: Departemen Manajemen Sumberdaya Peraiaran. Fakultas Perikanan dan Ilmu Kelautan.

E-Journal of Tourism Vol.7. No.1. (2020): 168-176

Digital Surveillance of Health and Safety Hazards at Tourist Attractions in Bali: First Preliminary Evidence

I Md Ady Wirawan[1,2], Wayan Citra Wulan Sucipta Putri[1], Ngurah Agus Sanjaya ER[3], Made Agus Hendrayana[2], Ni Made Dian Kurniasari[1], Ketut Hari Mulyawan[1]

[1]Department of Public Health and Preventive Medicine, Faculty of Medicine, Udayana University
[2]Travel Medicine Research Group, Health Research Centre, LPPM, Udayana University
[3]Department of Informatics, Faculty of Mathematics and Natural Sciences, Udayana University

Corresponding Author: ady.wirawan@unud.ac.id

ARTICLE INFO

Received
01 March 2020
Accepted
20 March 2020
Available online
31 March 2020

ABSTRACT

This study examined the feasibility of conducting digital surveillance of health and safety hazards through a system that can be accessed by travelers using their mobile phones. A progressive mobile website and a mobile application were developed employing a research database which consists of hazards, risks and health facilities that have been geo-tagged and mapped based on their respective geographical positions in 197 tourist attractions in Bali. The system was launched in 80 strategic tourist attractions in Bali at the end of August 2019. Trends in some specific diseases, hazards, and risks were observed monthly using a keyword analysis. Serial data for the first four months were analyzed and presented descriptively. The result shows that in total there were 19,869 visits to the website, or an average of 163 visits per day. There had been a nearly three-fold increase in total website traffic from 85.2 visits in September to 245.8 visits in December 2019. Safety hazard is the most frequently visited pages by tourists and there were 45 valid keywords found in the website panelboard. This study is the first to examine the possibility of developing a digital surveillance system using mobile phones directly involving travelers at destinations.

Keywords: travel health, destination, mobile health, industrial revolution 4.0

INTRODUCTION

Background

Travelers are important populations from an epidemiological point of view because of high mobility, the possibility of getting a disease or accident outside the country of origin, the risk of exporting diseases to the destinations, and importing diseases into the country of origin (WHO, 2008). This causes several problems such as difficulties in measuring risk, due to the inability to determine the accurate number of travelers who have contracted a disease or accident (numerator) and the total number of travelers at risk (the denominator). The characteristics of travelers and the nature of the disease also create difficulties for monitoring and surveillance systems. Travelers who get the disease with a long incubation period generally return to their home country when symptoms appear thus surveillance problems in tourist destinations. Conversely, travelers who experience a disease with a short incubation period will have symptoms that have disappeared when returning to their country, hence surveillance problems in the country of origin (Wirawan, 2018).

In addition, several studies have shown that there is still a lack of travel health information received by international travelers (Wirawan *et al.*, 2020). Only about 18.3% of international travelers, especially those who visit friends and relatives, received pre-travel counseling, including getting the necessary travel vaccinations and chemoprophylaxis (Talbot *et al.*, 2010). Considering the characteristics of the disease and travelers, the most relevant epidemiological data are the surveillance data on the travelers themselves. However, this is difficult to perform.

To date, only a limited number of travel health surveillance system has been developed in the destination country or tourist destinations. The development of mobile health technology has created opportunities to develop surveillance systems that can collect data from travelers themselves, provide travel health information specific to each tourist attraction, thus providing benefits to the country of origin and destination.

Research Objectives

This study aims to develop a system that allows tourists to obtain travel health information specifically in each tourist attraction, access the nearest health facility, and search any information about diseases, hazards and safety risks through a mobile phone. The feasibility of conducting digital surveillance through search histories and usage reports were assessed in this study.

LITERATURE REVIEW

Travel Health Surveillance

One of the most well-known travel health surveillance systems is the GeoSentinel Surveillance Network. GeoSentinel was founded in Atlanta in July 1995 as a center for emerging infectious disease sentinels, for travel and tropical medicine, initially for US tourists but later expanded internationally (Freedman, Kozarsky and Weld, 1999). At present, this network involves 60 travel medicine clinics on 6 continents, and all clinics contribute to the supervision and monitoring of all travel-related diseases encountered at their locations. Collecting this data globally makes it possible to conduct a joint analysis of final diagnoses in populations traveling with similar geographical risk exposure. In addition, most of the GeoSentinel locations contribute to increased surveillance and networking with public health authorities. For example, members in Europe can also collaborate on EuroTravNet and members in Canada can participate in CanTravNet, both of which are initiatives from the International Society of Travel Medicine (ISTM) in partnership with their respective public health authorities (ISTM, 2019). However, all of these systems use data from ill returned travelers, and have not yet provided benefits for destination countries or tourist destinations in developing countries.

GeoSentinel does not yet have a participating location in Indonesia. This results in a lack of information about symptoms, risk factors, and diseases that have the potential to be applied to improve surveillance systems and public health in general. On the other hand, although it has a positive impact on the economy, an increase in the number of tourists is also accompanied by an increase in illness, accidents and deaths related to travel and tourism activities. It was estimated that almost half of the travelers to a developing country will experience health problems, and 8% will need medical attention (Reid, Keystone and Cossar, 2001).

Travel Health in Bali

The number of international travelers to Bali increased significantly in the last 10 years, from about 1.3 million in 2007 to approximately 5.7 million in 2017 (BPS, 2018). On the other hand, the current surveillance system does not yet include tourists as one of the target populations. Current data on diseases among tourists depends on reporting on health facilities and hospitals that provide services to tourists. There is currently no regular travel health surveillance to collect data from all clinics or hospitals that serve

tourists. One effort related to this is a sporadic investigation into the area or tourist facilities when the authorities receive a case notification. Some cases have been reported such as Legionnaire's disease, fascioliasis, and diarrhea in tourists. Some disease surveillance exists and may include tourist data as populations at risk such as rabies, dengue fever, malaria, tuberculosis, Japanese encephalitis, hepatitis B, and HIV/AIDS (Informal communication with Bali Health Agency, 2019).

From the literature search results, very little is known about common diseases or symptoms that are specifically experienced by tourists to Indonesia and Bali in particular. This is because there is no robust and integrated travel health surveillance system that is able to include tourists in these destinations. The current surveillance system in Bali or Indonesia is generally only focused on routine diseases affecting the local population.

METHODOLOGY

The research began with the development of a progressive mobile website employing a research database which consists of hazards, risks and health facilities that have been geo-tagged and mapped based on their respective geographical positions in 197 tourist attractions in Bali (Wirawan et al., 2017). An Android-based mobile application was made to provide more options for prospective users (international tourists).

Furthermore, the program or system was launched in 80 strategic tourist attractions in Bali at the end of August 2019, by putting on health promotion media in the form of banners, posters, table stands, and stickers. The outcome variables of this study are the level of system utilization and the frequency of travel health information received by tourists. Trends in some specific diseases, cases, hazards, and risks were observed monthly using a keyword analysis. Serial data for the first four months were analyzed and presented descriptively.

RESULTS AND DISCUSSION

System Development and Launch

A progressive mobile website with the domain http://balitravelhealth.net/ has been launched at 80 strategic tourist attractions in Bali, under the name Bali Travel Health. In addition, an Android-based mobile application has also been launched to improve user accessibility. The mobile application can be accessed via the following link: https://play.google.com/store/apps/details?id=com.balitravelhealth. A unique QR

code was added in each health promotion medium to make it easier for tourists to access the website link, as seen by Figure 1.

Figure 1. QR code for promoting the Bali Travel Health website

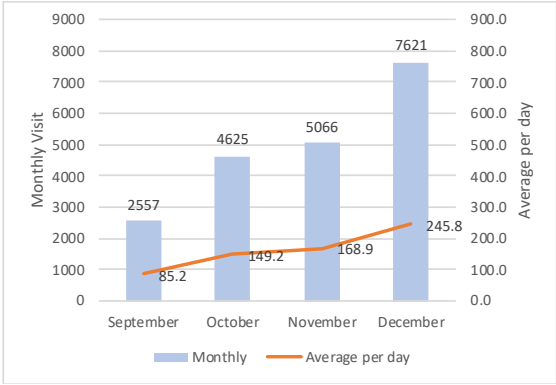
The Bali Travel Health website and Android application display data on 197 tourist attractions in Bali, consisting of the following information:

- Potential hazards and safety risks at each tourist site
- Health facilities closest to each tourist attraction
- Common diseases found in Bali along with preventive measures that can be done by tourists
- A page for reporting new unregistered attractions, unregistered hazards, and relevant disease information not yet on the website

This media is a means to get information sourced from users (crowd sourced), especially to improve the sustainability and quality of existing information.

Usage Data

Based on the analysis of usage data, it can be seen an increase in access to the website as shown in Figure 2. In total, there were 19,869 visits to the website in the first four months, or an average of 163 visits per day. There has been a nearly three-fold increase in total website traffic from 2,557 visits in September to 7,621 visits at the end of December 2019. In other words, average visits per day increased from 85.2 in September to 245.8 in December 2019. This indicates that the promotion media have effectively attracted tourists to access the website.



Source: Website usage statistics (primary data)

Figure 2. Monthly and average per day visit of the website in 2019.

Furthermore, we analyzed usage data for 13 specific pages containing information on diseases, health, and safety hazards.

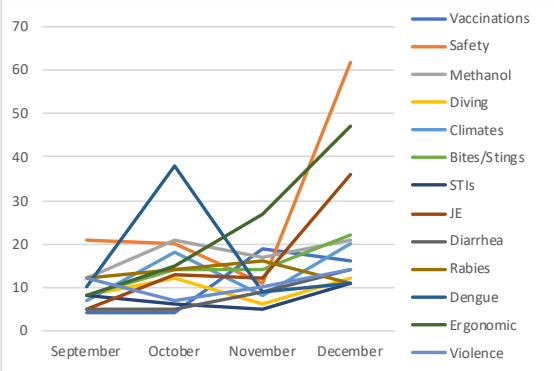
\

Table 1. Data usage for specific pages in the first four months

Web Page	Frequency	Proportion (%)
Vaccinations	35	4.4
Safety Hazards	115	14.6
Methanol	74	9.4
Scuba Diving	40	5.1
Climates	56	7.1
Bites or Stings	59	7.5
STIs	31	3.9
JE	68	8.6
Diarrhoea	39	4.9
Rabies	56	7.1
Dengue	72	9.1
Ergonomic	98	12.4
Violence	47	5.9
Total	790	100.0

JE: Japanese Encephalitis; STIs: Sexually Transmitted Infections

Table 1 indicates that in the first four months, safety hazard is the most frequently visited pages by tourists, followed by ergonomic hazards, methanol poisoning, dengue and Japanese encephalitis. Safety hazards at tourism attractions generally include any unsafe conditions that can cause injury, illness, and death, such as slips, trips, and falls; sharp objects; and difficult access or pathway (Wirawan *et al.*, 2017). The trend for each month was presented in Figure 3, to provide understanding on the dynamic of the specific web page usage.



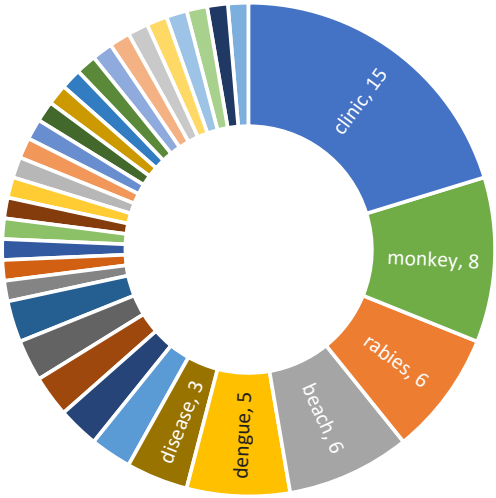
Source: Website usage statistics (primary data)

Figure 3. Monthly visit to the specific web pages on disease, health, and safety in 2019.

Figure 3 demonstrates the trends in the number of visits for each specific web page from September to December 2019. Each month, the most frequently web pages accessed may be analyzed to provide important information on what issues the travelers needed the most. For instance, information on safety hazards was consistently accessed during the first four months. The number of visits for the web page on dengue was much higher than other pages in October 2019, indicating that this disease might be of concern. Access to the methanol poisoning page was consistently moderate during the first four months after the launch of the website. While the access to the page on Japanese encephalitis was notably higher in December 2019 compared to the previous three months. These descriptive analyses are some of the

examples on how possibly use this data for surveillance or monitoring.

In addition, search histories recorded on the website may also indicate the need of the travelers about some important information required by them. Analyzing its trend might be useful as well for the digital surveillance measures in the long term.



Source: Website usage statistics (primary data)

Figure 4. Keyword analysis from search histories in the first four months.

Between September and December 2019 there were 45 valid keywords found in the website panelboard. Figure 4 illustrates the main keywords used by users, after some relevant and similar keywords were merged. The keyword "monkey" consists of some similar keywords including monkey, bites, scratches, monkey bite(s), monkey scratch(es). The most used keywords were "clinic(s)", indicating the users need of knowing the surrounding health facilities. Some endemic diseases currently in Bali such as dengue and rabies were among top keywords used by the tourists. Other keywords which amount two or less are beaches, temple, waterfall, JE, vaccination, malaria, and several tourist attractions.

This study is the first to examine the possibility of developing a digital surveillance system using a mobile phone directly involving travelers at destination. The results of the first four months of data analysis since the system was launched, show that this initial data is very promising to be used to complement the existing surveillance system. Its use in the long run will provide big data that can be utilized for programs in real time (Nsoesie *et al.*, 2015). In addition, crowed sourced data resulting from the use of the system by travelers in the future can provide an indication of the needs of tourists, and the possibility of an increase in cases of travel-related disease in certain geographical areas.

This system can be used as a feeder to make a more integrated system by involving health facilities in tourist attractions (World Health Organization, 2019). The combination of digital surveillance with regular surveillance involving travel health facilities will help the local health department to monitor

diseases, possible local outbreaks, and even an emerging disease, such as the coronavirus disease 2019 or known as COVID-19 (Wu and McGoogan, 2020). From this study however, there is no indication that travelers visiting Bali between September and December 2019 experienced one or more of the COVID-19 symptoms, as shown by the keyword analysis in Figure 4.

CONCLUSION

A progressive mobile website and an Android-based mobile application for Bali Travel Health have been launched at 80 strategic points at tourist attractions in Bali. There had been an increase in website access in the first four months, with an average visit of 163 per day. There had been a change in trends from the types of information accessed by users, where safety hazard had been the page that had been consistently accessed in the first four months. An increase in both the number and variety of keywords used had also consistently appeared in the first four months.

This preliminary study provides evidence that a digital surveillance system has a potential to be implemented at destinations. Its integration with regular surveillance system involving travel health facilities will improve the provision of data on travel-related disease, accidents, and risks.

Acknowledgement

We would like to thank Bali Province Health Agency, Bali Province Tourism Agency, and Bali Tourism Board for their assistance and formal supports to this study.

REFERENCES

BPS (2018) *International Travelers to Indonesia by Arrival Gate, 1997-2017, Statistics Indonesia*. Available at: https://www.bps.go.id/statictable/2009/04/14/1387/jumlah-kunjungan-wisatawan-mancanegara-ke-indonesia-menurut-pintu-masuk-1997-2017.html (Accessed: 11 March 2019).

Freedman, D., Kozarsky, P. E. and Weld, L. H. (1999) 'GeoSentinel: The Global Emerging Infections Sentinel Network of the International Society of Travel Medicine', *Journal of Travel Medicine*, 6(2), pp. 94–98.

ISTM (2019) *GeoSentinel*. Available at: http://www.istm.org/geosentinel (Accessed: 28 March 2019).

Nsoesie, E. O. *et al.* (2015) 'New digital technologies for the surveillance of infectious diseases at mass gathering events', *Clinical Microbiology and Infection*. Elsevier Ltd, 21(2), pp. 134–140. doi: 10.1016/j.cmi.2014.12.017.

Reid, D., Keystone, J. S. and Cossar, J. H. (2001) 'Health Risks Abroad: General Considerations', in DuPont, H. L. and Steffen, R. (eds) *Textbook of Travel Medicine and Health*. 2nd edn. Hamilton, London: B.C Decker Inc., pp. 3–9.

Talbot, E. A. *et al.* (2010) 'Travel medicine research priorities: establishing an evidence base.', *Journal of Travel Medicine*, 17(6), pp. 410–5. doi: 10.1111/j.1708-8305.2010.00466.x.

WHO (2008) *International Health Regulations 2005*. 2nd edn. Geneva: World Health Organization.

Wirawan, I. M. A. *et al.* (2017) *Kesehatan dan Keselamatan Wisata: Direktori Hazard, Risiko, dan Layanan Kesehatan Wisata di Bali*. 1st edn. Yogyakarta: Andi Publishing.

Wirawan, I. M. A. (2018) 'Healthy tourism initiatives at destinations: opportunities and challenges', *Public Health and Preventive Medicine Archive*, 6(1), pp. 1–3. doi: 10.15562/phpma.v6i1.1.

Wirawan, I. M. A. *et al.* (2020) 'Travel agent and tour guide perceptions on travel health promotion in Bali.', *Health Promotion International*, 35(1), pp. e43–e50. doi: 10.1093/heapro/day119.

World Health Organization (2019) *WHO guideline: recommendations on digital interventions for health system strengthening*. Geneva: World Health Organization.

Wu, Z. and McGoogan, J. M. (2020) 'Characteristics of and Important Lessons From the Coronavirus Disease 2019 (COVID-19) Outbreak in China', *JAMA*, 323(13), p. 1239. doi: 10.1001/jama.2020.2648.