

Evaluation of the Development Phase of the Pujon Kidul Tourism Village in Malang Regency using the Irritation Index Model Approach

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Abstract

The tourism sector is a prospective commodity as a source of foreign exchange. The contribution of tourism to gross domestic product (GDP) indicates that the tourism sector dramatically contributes to supporting Indonesia's economic development. The tourist village is one of the tourist attractions in Indonesia that offers the charm of rural tourism, which has distinctive socio-economic characteristics, culture, customs, natural charisma, and the interaction between nature and humans. The development of a tourist village cannot be separated from the role of the community around the tourism object. One of the developing tourist villages in Indonesia is Pujon Kidul Tourism Village which in 2017 received an award from the Ministry of Tourism. This study used the Irritation Index Model to show the attitudes of local people towards the development of tourism objects. The analytical method used was scoring analysis using the Guttman scale, Butler's TALC model, and the measurement of the Irritation Index model with a rating scale.

The results indicated that the three tourist destinations in Pujon Kidul village experienced different phases. The first destination was the Krajan Hamlet Tourism which was described in the life cycle and was in the Involvement development phase in 2016. Furthermore, in 2019 it was in the Consolidation phase having natural attractions and attractions developed to support natural attractions. The second destination was the Tulungrejo Hamlet Cultural Village which was in the involvement phase. The third destination was tourism in the hamlet of Maron, which was in the Consolidation phase. This destination has natural attractions, and artificial lures were developed to support natural attractions. These results showed that the application of the Doxey theory in the tourist village of Pujon Kidul made the community in the Euphoria phase.

Key words : *Desa Wisata, Fase Pengembangan, Irritation Index model*

Introduction

Tourism advances the quality of life of the destination country in terms of job creation, income generation, increased mobility of vehicles, and the warm welcome and services of the host country's citizens. According to a UN report, the number of tourists who go to other countries for tourism purposes has significantly increased in the last four

decades.^[1] Tourism Management combined with Trade is developed considerably in the Southeast Asian region, which has the potential for biodiversity and tourism. Tourism potential in Southeast Asia is experiencing rapid economic development and is very vulnerable to human disturbances and climate change.^[2]

Tourism has become a rapidly growing sector that can create jobs, generate income for local communities, promote cultural exchange, improve infrastructure, and act as a means of environmental protection and conservation.^[3] Likewise, the development of tourism in Indonesia every year has increased. The contribution of tourism to gross domestic product (GDP) is 4.23% of the national GDP or Rp. 461.36 trillion. It indicates that the tourism sector can build the Indonesian economy.^[4] On the other hand, tourism development also brings many problems to local communities in tourist destinations, such as population density, traffic congestion, superstructure, and socio-cultural decline. These problems can arise due to tourism policies that tend to be "Laissezfire" and immature planning and changes in the social structure of a community.^[5]

East Java is one of the provinces that has a rapid development of tourist villages to attract tourists. This tourist village trend makes East Java a favorite destination for tourists to enjoy a unique village atmosphere and has its characteristics in each region.^[6] Tourism villages that prioritize traditional aspects have a smaller scope because they depend on management by the local community around the tour.^[7] On the other hand, this tourist village has also become the government's attention by being given a tourism status because it has cultural, historical, artistic, and architectural values.^[8] In addition, this tourist village has potential socio-economic benefits for the local community, so it is often referred to as a motivation for reintroduction. The development of a tourist village needs an understanding of whether and how this happens.^[9] Therefore, the development of tourist villages needs to be integrated with every aspect.^[10]

Malang Regency, one of the largest tourist destinations in East Java, has a promising trend in tourists. Every year the development of the tourism village concept through Community *Kelompok Sadar Wisata (Pokdarwis)* in Malang Regency continues to increase^[11]. Malang Regency has several villages that can be developed. Pujon Kidul tourism village is one of the tourist villages that has made it into the ten best tourist villages in Indonesia set by the Ministry of Villages, Development of Disadvantaged Regions and Transmigration (Kemendes PDTT) in 2017. The existence of this tourist village has succeeded in prospering the surrounding community. The development of Pujon Kidul is by the demands of tourist destination villages.^[12]

Therefore, this study aims to analyze the attitude of the people in the Pujon Kidul Tourism Village towards the development of tourism. One simple theory commonly used is the theory of Doxey, namely the irritation index model, which can describe the community's attitude towards tourist destinations through four stages: euphoria, apathy, annoyance, and antagonism. Because basically, the cognitive approach examines the process from thought to action, and the motivational approach explores what drives the action for attitude theory; together, they offer an understanding of public relations.^[13]

Literature Review

Tourism destinations are considered aggregates of spatial relations of production, life, ecology, consumption, and other elements.^[14] Tourism destinations have entered a new stage along with rapid developments in the economic aspects, consumer demand, transformation, and tourism development. Spatial production, evolution, and restructuring have become general science. Problems in the study of tourist destinations of various scales and types.^[15]

Tourism can involve several fields such as primary transportation, local transportation, accommodation, entertainment, recreation, food, and shopping. Stable tourism refers to tourism activities that manage all resources while preserving the environment and respecting cultural values. Several indices should be introduced to evaluate stability.^[3]

Over the past few years, the tourism industry has been affected by new advances in Information and Communication Technology.^[16] Nowadays, electronic devices with Internet Connections continue to be used to organize and assist people on their journeys worldwide using different applications such as travel guides, GPS, or interactive history books.^[17]

Method

The data used in this study is primary data. Primary data is a data source that provides data sources directly to data collectors.^[18] This study used qualitative and quantitative research methods. The data used in this study are data on the number of visitors, tourism development over five years, BUMD data, KDA data, and public opinion regarding the availability of attractions, accommodation facilities, accessibility of promotions at the research location.

In this study, the method used was descriptive qualitative data analysis technique with the Doxey irritation index (irridex) method. The Doxey irritation index (irridex) is used as the main theoretical framework in this paper. Although Doxey points out that in the latter stages of tourism development, local people tend to be at odds with tourists, the relationship between them and the tourists is relatively harmonious in the case of the Maasai. It could be because local communities are actively involved in tourism development and benefit from the industry.^[19]

Doxey proposed an index of resident irritation to explain local attitudes towards tourist inflows. (Table 1) According to the theory, behavior modification occurs in local residents towards tourists. This is indicated by the growth in the level of tourism in a given destination.^[20]

Table 1. Doxey's Irridex Index

No	Level Of Irritation	Destination Responses To Tourists
1	Euphoria	It is associated with the early stages of destination development. A sense of excitement and anticipation. Informal contact with tourists.
2	Apathy	More formal contact with tourists is starting to be seen as a source of income and investment.

3	Annoyance	Residents are starting to doubt the tourism industry due to increasing numbers and external investment and infrastructure.
4	Antagonism	Irritation is expressed verbally and physically. Politeness gives way to antagonism Tourists are seen as the cause of trouble

Sumber: Doxey's Irridex Index (1975)

Result

A. Perkembangan Pariwisata

Variables and indicators that can be used to assess the development phase of a tourism object are attractions, accommodations, accessibility, facilities, promotions. This research is seen from the availability of the tourism component based on the primary survey. The following is an explanation regarding the average score data from each destination.

1. Krajan hamlet tourism object

Data on the availability and conditions of tourism components, from attractions, facilities, accommodation, accessibility, and promotions to tourist destinations in Krajan Hamlet and Maron Hamlet, were obtained from primary surveys from 2016-2018. Then analyzed and generated in the form of table 5.3 as follows:

Table 2. Score Data Per Variable from 2016 to 2019 on Tourism Objects in Krajan Hamlet and Maron Hamlet

Tourism Object	year	Attractions	Accommodation	Accessibility	Facility	Promotion	Score Average
Krajan Hamlet	2016	2	1	1	2	1	1.4
	2017	3	2	3	4	3	3
	2018	4	5	4	5	4	4.4
	2019	5	5	4	5	5	4.8
Nirwana hill	2018	3	1	4	3	3	2.8
	2019	5	1	4	4	3	3.4

Source: Analysis results, 2020.

Based on table 2, the average score of the variables from the tourism component (Attractions, Accommodation, Accessibility, Facilities, Promotions) can be seen from 2016 to 2019. In 2016 the average score was 1.4. In 2017 the average score was 3, and 4.4 in 2018. Then, the average score in 2019 was 4.8. Meanwhile, Maron Hamlet with Nirwama Hill tourism has an average score per tourism component variable (Attractions, Accommodation, Accessibility, Facilities, Promotion) was 2.8 in 2018 and 3.4 in 2019.

B. Research Analysis.

The following picture is the result of the analysis of data on tourist visits to two tourism objects in the tourist village of Pujon Kidul (Krajan Hamlet and Maron Hamlet) and data from the tourism components of each of these hamlets.

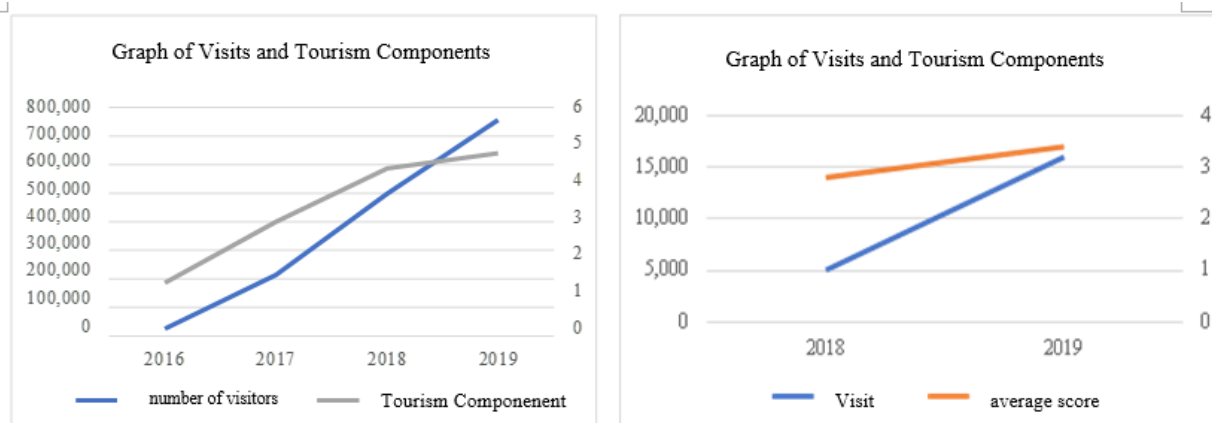


Figure 1. Graph of Tourist Visits and Availability of Tourism Components in Krajan and Maron Hamlets in 2016-2019

The tourism life cycle in the Krajan Hamlet tourism destination in 2016 was in the Involvement phase. In this cycle, tourism is still focused on developing its natural attractions. Then in 2019, it was in the Consolidation phase because it already had artificial attractions developed to support existing natural attractions.

The analysis process at the Cultural Village Tourism Destinations is carried out by directly testing its suitability with the existing phases in the Tourist Area Life Cycle data. The data used is data that has been collected through observation and interviews, then described and analyzed descriptively, then the data obtained will be rechecked with the characteristics of each phase in the Talc (Tourism area life cycle). The following are the results of the analysis of the process

Table 3. Cultural Village Development Phase

Stage	Characteristic	Observation result	
		appropriate	Not appropriate
Exploration Stage (exploration)	• Tourists can find a place with new tourism potential.		✓
	• The location is difficult to reach, but it is in demand by a small number of tourists who are actually of interest because it is not yet crowded.		✓
	• Tourists are attracted to unpolluted and deserted areas		✓
	• There is control from the local community.	✓	
Involvement Stage (involvement).	• Increased number of tourist visits.	✓	
	• An area becomes a tourist destination marked by the start of promotions	✓	
	• There are initiatives from local communities to develop their areas	✓	
	• Investments from outside are starting to come in for tourism development.		✓
Development Stage (Development)	• Tourist areas are becoming more physically open		✓
	• Local facilities have been abandoned or replaced by international standard facilities		✓

Stage	Characteristic	Observation result	
		appropriate	Not appropriate
	<ul style="list-style-type: none"> Artificial attractions have begun to be developed to add natural attractions 		✓
	<ul style="list-style-type: none"> International networks hold regional and economic dominance in tourism. 		✓
<i>Consolidation Stage</i> (Consolidation)	<ul style="list-style-type: none"> The number of tourist arrivals is increasing but still at a lower level. 		✓
	<ul style="list-style-type: none"> Old facilities are starting to be abandoned 		✓
	<ul style="list-style-type: none"> The capacity of various factors has exceeded the carrying capacity, causing economic, social, and environmental problems. 		✓
<i>Stagnation Stage</i> (stagnation)	<ul style="list-style-type: none"> The industry has begun to work hard to fulfill the capacity of the facilities owned, especially by expecting repeater guests or convention/business tours 		✓
	<ul style="list-style-type: none"> Artificial attractions are more dominant than natural attractions, both cultural and natural), 		✓
	<ul style="list-style-type: none"> The initial image has started to fade, and the destination is no longer popular. 		✓
	<ul style="list-style-type: none"> Tourists have switched to new tourist destinations 		✓
<i>Tahap decline</i> (reduction)	<ul style="list-style-type: none"> Many tourism facilities have been transferred to non-tourism activities, making destinations less attractive to tourists 		✓
	<ul style="list-style-type: none"> Local participation may increase again as prices slide down with market weakness 		✓
	<ul style="list-style-type: none"> Destinations can develop into low-class destinations (a tourism slum) or completely lose themselves as tourist destinations 		✓
<i>Tahap rejuvenation</i> (rejuvenation)	<ul style="list-style-type: none"> Dramatic changes can occur as a result of the efforts of various parties towards improvement or rejuvenation 		✓
	<ul style="list-style-type: none"> There is innovation in developing new products, exploring or utilizing natural and cultural resources that have not been used previously 		✓

The analysis results show that the development phase of the Krajan and Maron Hamlet Cultural Villages is in the involvement phase. The characteristics shown from this phase are the control of the local community and an increase in the number of tourist visits.

C. Application of Doxey's Irritation Index Model, in Pujon Kidul Tourism Village, Pujon District, Malang Regency

In the application of the Irritation Index, the Doxey Model is based on an understanding of the changing attitudes of local residents towards tourists and tourism development. Different phases are a consequence of tourism due to the development of various social, economic, and environmental aspects of the destination.

Based on the results of the analysis on the social aspect, it was found that 81% of respondents showed a positive attitude towards social tourism. Respondents feel happy to meet or interact with tourists. Tourism has also made the Pujon Kidul tourist village a more

attractive place to live so that it gives the community a sense of pride in Pujon Kidul tourist village. Tourism has also provided good service to restaurants, shops, and other trade areas. On the other hand, as many as 60% of respondents disagreed or conveyed negative things about tourism, including tourism has disturbed the peace and tranquility of the people in Pujon Kidul Tourism Village. In addition, tourism has contributed to an increase in crime rates in the Pujon Kidul Tourism Village. Cultural acculturation has occurred due to tourism.

Based on statements related to the positive aspects of tourism to the economy, it was found that 80% of respondents agreed with tourism. This is because tourism has created job opportunities for the community. Tourism in Pujon Kidul Tourism Village has a positive impact on the village economic sector. Further tourism development will benefit the community and must be continued. Then, the use of village funds for tourism promotion and facilities is not a waste. However, as many as 56% of respondents' statements do not agree with the economic aspects of tourism. This is because the economic benefits of the tourism sector are exaggerated, there is dependence on tourism, and tourism is considered to only benefit a small part of the population of Pujon Kidul Tourism Village residents

Based on the positive side of the environmental aspect, 71% of respondents agreed. partly because tourism has increased opportunities for the construction of facilities for tourist villages. In addition, tourism has raised awareness among residents and village governments to maintain and improve the village's image. Meanwhile, as many as 46% of respondents strongly disagree with the negative aspects of the tourism environment. It is because the increase in tourism has caused traffic jams and noise. Then tourism in the tourist village of Pujon Kidul has caused an increase in the volume of waste. Recently, the conversion of land for tourism activities has harmed rural communities.

Based on these findings, the next process was analyzed based on the Doxey stage, and the result was that people's attitudes were in the Euphoria phase. It can be seen from the indicators that appear, including local people who still support tourism development and are accustomed to living side by side with tourists in their daily lives.

In general, local people still tend to feel the benefits or advantages of tourism activities such as new job opportunities, increased income, and people's purchasing power, which affects the quality of life of local communities. In addition to individual benefits, local communities also consciously share the benefits of tourism development which affect the development of road access, facilities, and infrastructure.

This study indicates that the local community's response to tourism development through the Doxey theory is in the Euphoria phase. The development of tourist destinations is in the investment and development phase. This explanation can be seen in Figure 2.

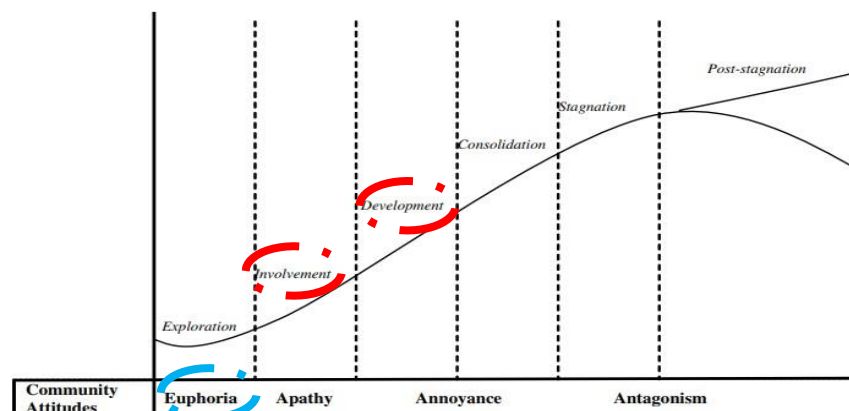


Figure 2. Graph of community attitudes in the tourist village of Pujon Kidul in the application of the Doxey Irritation Index to the development of destinations

Conclusion

Krajan Hamlet Tourism Destinations are described in the tourism life cycle and the results show that these destinations are in the Involvement development phase in 2016. This is because Krajakn Hamlet tourism is still focused on developing its natural attractions. Only in 2019, the tour was in the development phase because, in addition to having natural attractions, the tour also had artificial attractions that were developed to support natural attractions. On the other hand, the Cultural Village in Tulungrejo Hamlet is in the involvement phase. This characteristic is indicated by the control of the local community, an increase in the number of tourist visits. Meanwhile, tourist destinations in Maron Hamlet are in the Consolidation phase because they already have natural attractions and artificial attractions that were developed to support natural attractions.

The application of Doxey theory in the tourist village of Pujon Kidul is in the Euphoria phase. It can be seen from the indicators that appear, including the local community still supporting tourism development and are used to living side by side with tourists in their daily lives.

In general, local people still tend to feel the benefits or advantages of tourism activities such as new job opportunities, increased income, and people's purchasing power, which affects the quality of life of local communities. In addition to individual benefits, local communities also consciously share the benefits of tourism development which affect the development of road access, facilities, and infrastructure.

This study indicates that the response of local communities to tourism development through the application of Doxey theory is in the Euphoria phase, and the development of tourist destinations is in the investment and development phase.

References

- [1] Sarpong, Steve Yaw. (2020). The impact of tourism arrivals, tourism receipts and renewable energy consumption on quality of life: A panel study of Southern African region. *Heliyon* 6 (2020) e05351.

- [2] Lechner, Alex M.(2020). Rethinking tourism conflict potential within and between groups using participatory mapping. *Landscape and Urban Planning* 203 (2020) 103902
- [3] Nunkoo, Robin. (2015). Toward a More Comprehensive Use of Social Exchange Theory to Study Residents' Attitudes to Tourism. 3rd GLOBAL CONFERENCE on BUSINESS, ECONOMICS, MANAGEMENT and TOURISM, 26-28 November 2015, Rome, Italy. *Procedia Economics and Finance* 39 (2016) 588 – 596.
- [4] Dewi, G. M dan Umilia. (2018). Arahan Pengembangan Pariwisata Berdasarkan Adaptasi Teori Siklus Hidup Pariwisata di Kabupaten Ponorogo. *Jurnal Teknik ITS* Vol. 7, No.2. ISSN: 2337-3539.
- [5] Hidayati, Rini. (2016). Tourism development of historical riverbanks in Jatinom Village. *Procedia - Social and Behavioral Sciences* 227 (2016) 650 – 655
- [6] Lestari, Fadhilla Dwi. (2019). Pengaruh Motivasi Terhadap Keputusan Berkunjung (Survei Pada Pengunjung Desa Wisata Pujon Kidul Kabupaten Malang). *Jurnal Administrasi Bisnis (JAB)|Vol. 70 No. 1 Mei 2019|* administrasibisnis.studentjournal.ub.ac.id
- [7] Gurran, Nicole. (2020). 'Pop-up' tourism or 'invasion'? Airbnb in coastal Australia *Annals of Tourism Research* 81 (2020) 102845.
- [8] Gao, Jing. (2017). Revitalizing traditional villages through rural tourism: A case study of Yuanjia Village, Shaanxi Province, China. *Tourism Management* 63 (2017) 223e233.
- [9] Auster, Roger E. (2020). Wildlife tourism in reintroduction projects: Exploring social and economic benefits of beaver in local settings. *Journal for Nature Conservation* 58 (2020) 125920.
- [10] Dewi, Luh Ketut Yulitrisna. (2014). Modeling The Relationships Between Tourism Sustainable Factor In The Traditional Village of Pancasari. *Procedia - Social and Behavioral Sciences* 135 (2014) 57 – 63.
- [11] Vitasurya, Vincentia Reni. (2016). Local Wisdom for Sustainable Development of Rural Tourism, Case on Kalibiru and Lopati Village, Province of Daerah Istimewa Yogyakarta . *Urban Planning and Architecture Design for Sustainable Development, UPADSD 14- 16 October 2015. Procedia - Social and Behavioral Sciences* 216 (2016) 97 – 108.
- [12] Sumarto, R.H dan Desanta, A. (2019). *Triple Helix* Dalam Pengembangan Sumber Daya Manusia Di Desa-Desa Wisata Kabupaten Malang. *Prosiding Temu Ilmiah Nasional Balitbang Tahun 2019 Percepatan Pengembangan Desa Mandiri*
- [13] Adom, Dickson. (2020). Local attitudes toward the cultural seasonal hunting bans in Ghana's Bomfobiri Wildlife Sanctuary: Implications for sustainable wildlife management and tourism. *Global Ecology and Conservation* 24 (2020) e01243
- [14] Wang, Lu. (2020). Tourism space reconstruction of a world heritage site based on actor network theory: A case study of the Shibing Karst of the South China Karst World Heritage Site. *International Journal of Geoheritage and Parks* 8 (2020) 140–151
- [15] Bazneshin, Sepideh Doosti. (2016). The Physical Variables of Tourist Areas to Increase the Tourists' Satisfaction Regarding the Sustainable Tourism Criteria: Case

- study of Rudsar Villages, Sefidab in Rahim Abad. Asian Conference on Environment-Behaviour Studies, AcE-Bs2015, 20-22 February 2015, Tehran, Iran. Procedia - Social and Behavioral Sciences 201 (2015) 128 – 135.
- [16] Palos-Sanchez, Pedro. (2021). A business model adoption based on tourism innovation: Applying a gratification theory to mobile applications. European research on management and business economics 27 (2021) 100149
- [17] Saura, J. R. (2020). Using data sciences in digital marketing: Framework, methods, and performance metrics. Journal of Innovation and Knowledge, 1(2020). doi:10.1016/j.jik.2020.08.001.
- [18] Sugiyono. (2005). Metode Penelitian Administrasi. Bandung: Alfabeta.
- [19] K. B, Shobha. (2019). A Case Study On Irritation Among Local People Towards The Growth Of Tourism In Kodagu District: With The Reference Of Doxey's Irridex Model. International Journal of Innovative Research and Advanced Studies (IJIRAS) Volume 6 Issue 1, January 2019. ISSN: 2394-4404
- [20] Irandu, Evaristus M. (2007). The role of tourism in the conservation of cultural heritage in Kenya Asia Pacific Journal of Tourism Research Volume 9, 2004 - Issue 2. <https://doi.org/10.1080/1094166042000233658>.