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Staycation During COVID-19 Pandemic with Virtual Tourism: Tele-Tourist's Attitude Toward Experience in Cultural Heritage Destination

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Abstract

Malang City, Indonesia, is known as the *Paris van oost Java* and was officially named the City of Heritage because of the high interest of domestic and foreign tourists to trace the history and antique architecture of the city. However, travel restriction policies in various countries also demanded the solidarity of tourists to stay at home, avoiding crowds, and delaying travel plans during the COVID-19 pandemic. It clearly causes the tourism sector to be heavily affected. Therefore, it is necessary to manage cultural heritage tourism destinations that can allow tourists to do a staycation in sophisticated form and considering the carrying capacity more according to the COVID-19 safety protocol. As a solution, this research used the R&D method with mixed methods approach consist of observation, visual analysis, and survey experimental to produce web-based virtual tourism (web-VR) for ancient and astonishing The Great Mosque of Jami' Malang. The content was further confirmed using field experiments analyzed by Generalized Structured Component Analysis (GSCA) involving 30 tele-tourists. The results of this study indicate that the virtual experience of tourists, which consists of immersiveness and telepresence after visiting the virtual destination, has an effect on the attitude of tele-tourist. Therefore, virtual tourism can be considered complementary to actual visits, visitor management, as well as preserve destination sustainability.

Keywords: COVID-19, immersion, telepresence, tele-tourist's attitude, virtual experience, virtual tourism.

INTRODUCTION

The trade route during the Dutch Colonial period for hundreds of years has opened acculturation of western, middle east, and Chinese culture into various aspects of Indonesian culture, including architecture and interior. In some big cities in Java Island, many areas still have the old city area so that the types of buildings can be found in various cities, for example, in Malang City. Malang was known as *Paris van oost Java* because it was predicted as the best colonial city planning in the Dutch East Indies at the beginning of the 20th century [1]. A concrete step has been taken by the local government to bring back the identity of the city space through the official coronation of Malang City as a Heritage City. This identity was taken because of the many architectures of the Dutch heritage in Malang City and the increasing number of tourists visiting Malang, especially for historical reasons.

The historical and architectural values of cultural heritage buildings in Malang need to be packaged in activities based on the preservation of cultural heritage and to evoke the image of cultural tourism [2]. To support this, it is necessary to build a path or historical track of the city or region. One of the destinations offered is

cultural heritage sites of the Dutch colonial, including an early Islamic building named The Great Mosque of Jami' Malang. This site was found in 1853 on Goepnemen land or state land, covering an area of 3,000 m² in the Dutch Colonial era [3]. The mosque building consists of three styles, i.e., local elemental style, namely Javanese architectural style, and immigrant elemental style, namely Middle Eastern architectural style, and European-Dutch architectural style. Javanese architectural style can be seen from the form of the roof of the old mosque building in the form of a *tajug*, four *sakaguru* (main columns), and *sakarewa* with *Demakan* type styles (Javanese Vernacular). After the independence era, in the 1950s, the mosque experienced an expansion of space where the porch became a Middle Eastern style building (Pan Islamic), with the appearance of dome-roofed gates, concrete roofs, towers with dome roofs, and also curved construction in areas of door openings and window. Then, the two types of space are separated by a separating element in the form of a multi-door wall with the style of the Dutch European style (Indische Empire), which functions as a liaison between outer space and inner space, sacred space and profane space [4]. The Great Mosque of Jami' Malang, as the oldest mosque in the city of Malang, has experienced a change in both the facade and the interior of the building [5].

The negative excesses in determining the building of the The Great Mosque of Jami'

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Malang as a tourist destination for cultural heritage is to have an impact in increasing the number of visitors to The Great Mosque of Jami' Malang, which is not only for worship but also for sightseeing. This condition is very dangerous during the COVID-19 pandemic. Moreover, it can be seen clearly that as a heritage tourism destination, the Great Mosque of Jami' Malang does not have adequate amenities such as access in the form of narrow land and parking difficulties, so that popularity and mass tourism if not anticipated and managed properly can actually disrupt the stability of the site and also harmful visitor safety regarding the spread and transmission of viruses in a crowded area.

However, exploring and wandering is a form of human civilization that is still ongoing, so it is difficult to stop from everyday life even for a while. Even more, in the midst of a COVID-19 pandemic, entertainment facilities and recreational activities are needed to reduce boredom and public panic. One quick alternative is through the development of virtual world content based on virtual reality (VR) technology [6] or what is known as virtual tourism so that tourists can travel from home. Virtual tourism offers a realistic experience without taking risks and damaging the reserve site and allows *visits* to sites with sensitive environments that lack the capacity to accommodate many visitors [7] by diverting the number of tourists visits directly through virtual visits on virtual tourism content to complement virtual visits [8] or used tourists as an alternative to virtual visits [9] and can even be used for individual traveler's trip planning [10].

Web-Based Virtual Tourism (Web-VR) is a technology for creating immersive virtual reality experiences in the browser. Panoramic photo-taking uses a spherical type that makes it possible to look up and down (horizontal) as well as left and right (vertical) or 360°. The spherical panoramic photos are then put together in the form of a gallery image so that it allows users to visit various locations in one web view and feel as if they have done an immersive virtual tour [11]. These visitors are internet tourists, e-tourists, or also called tele-tourists who have visited the destination virtually and not *actually* visits [10].

The most important capacity for virtual tourism is the ability to provide virtual experiences that specifically only occur within the boundaries of computer-mediated environments, such as a sense of physical presence (immersion) and psychological

presence (telepresence) [12]. According to a previous study [13], the term immersion refers to the level of objectivity regarding the accuracy of the sensors provided by the virtual reality system. The study [13] also states the term presence refers to the user's subjective psychological response to the virtual reality system where the user feels as if he is in the virtual destination. Then, attitude is an evaluative assessment of an object in connection with some level of goodness or dislike [14]. In this study, the attitude of visitors in question is the attitude of visitors to virtual destinations, namely the WebVR of The Great Mosque of Jami' Malang.

In this study, researchers will examine the effect of immersiveness [15,16] and telepresence [15,16,17] perceived by virtual visitors on the web-based virtual tourism of The Great Mosque of Jami' Malang towards the attitude of visitors. This study adopts variables in Technology Acceptance Model (TAM) and Technology Acceptance Model 2 (TAM 2), which are attitudes that can be influenced by a number of stimuli, especially those used in this study are external perspective stimuli, namely user experience [18].

Even so, in Indonesia, no research has been found on the created virtual tourism content for visitor management purposes during the COVID-19 pandemic, especially at cultural heritage sites. Some researchers in Indonesia have indeed developed virtual tourism content, for example, for the benefit of historical education e-learning [19]. Whereas another study [20] has developed virtual tourism, but it does not involve confirmation to get the user's perspective. Therefore, it is expected that this research can fill the research gap. Therefore, this research aims to develop a web-based virtual tour of The Great Mosque of Jami' Malang and continued with evaluating the attitude of tourists regarding the immersiveness and telepresence experienced by tele-tourist while visiting the virtual environment on the The Great Mosque of Jami' Malang's web-based virtual tourism.

MATERIAL AND METHOD

Research Design

This type of research is Research and Development (R&D) with a mixed-method approach of observation, visual material, and experimental surveys using the Multimedia Development Life Cycle (MDLC) model. The MDLC method has six stages, namely concept, design, material collecting, assembly, testing, and distribution [21], as shown in Figure 1.

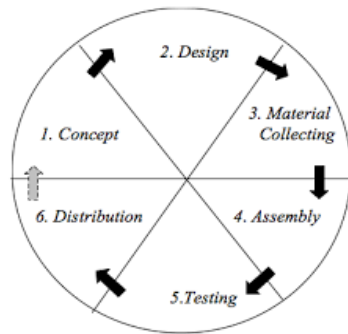


Figure 1. Research design

Instruments

The treatment variable in this study is to provide treatment in the form of a virtual experience of the Great Mosque of Jami' Malang WebVR consisting of immersiveness and telepresence. Meanwhile, the observation variable in this study is the attitude of visitors to the virtual destination of the Great Mosque of Jami' Malang, which will be observed after being treated. All question items are measured using a five-point Likert scale, from strongly disagree (1) to strongly agree (5). This research measures immersiveness using research [22] and [23], which consists of 1) immersion of challenges that is related to motor skills or mental skills such as strategic thinking or logical problem solving; 2) the immersion of the system that is related to audiovisual execution and 3) the immersion of imagination is to be absorbed by the storyline and the virtual world, or begin to feel or identify with characters in the virtual world.

In addition, to measure telepresence MEC Spatial Presence Questionnaire of [24] consists of two dimensions, namely 1) self-location, that is, the feeling of being in a mediated virtual environment and; 2) the likelihood of action is the likelihood of carrying out a perceived action in a virtual environment. Furthermore, changes in attitude are measured changes in 1) feeling like; 2) feel interested; 3) feel enjoy and 4) feel meaningful destination after using reality technology by adopting research [25].

Samples and Data Collection

The total sample involved in this research experiment consisted of 30 tele-tourists who were never visiting Malang, aged ≥ 17 years, and had never visited the Great Mosque of Jami' Malang destination before. Sampling was done purposively. This study uses observation and documentation to develop WebVR content in the Great Mosque of Jami' Malang at the concept, design, and material collection stages and uses

surveys with questionnaires to confirm tourist behavior after visiting the WebVR at the testing stage. The observation instrument in the form of a field note/logbook contains a list of types of activities that are likely to occur or have been observed. Second, the documentation checklist lists the things that will be collected and adjusted for photospheres related to the cultural heritage destination of the Great Mosque of Jami' Malang. Then, this study uses data collection methods with survey methods using a questionnaire through actual experiments (pre-experimental research) with the form used is the One-Shot Case Study which is an experiment that is carried out only once and without a comparison group and without initial tests/pre-test [26] as shown in Table 1.

Table 1. Experimental Design

Subject	Treatment	Post-test
Treatment Group	X (Immersion and Telepresence in Virtual Experience Web-VR)	O (Attitude)

Description:

X = Treatment given (treatment variable)

O = Observation results after treatment (observation variable)

Experiment Procedure

For the experimental group, the experiment starts when tourists use web-based virtual tourism from the Great Mosque of Jami' Malang. Tourists can access the virtual version of the mosque through a link that was developed in the previous stage, which was facilitated by the Faculty of Administrative Sciences, Tourism Laboratory Unit, University of Brawijaya. Tourists are equipped with tools such as Gear VR and Android smartphones to explore the virtual destinations of the Great Mosque of Jami' Malang on these links interactively and immersively. After completing the experiment, tourists are instructed to fill out questionnaires to confirm the possibility of virtual experiences that are felt both immersion and telepresence while visiting WebVR affect attitudes toward virtual tourist destinations with the black box testing method.

Data Analysis

In a qualitative approach, to analyze the results of observations and documentation in the form of text and photospheres, this study uses content analysis. As for the quantitative approach, this research uses Generalized Structured Component Analysis (GSCA).

Hypothesis testing is done by bootstrapping, where the significance can be seen from the value of the Critical Ratio (CR) produced. CR is a value of a statistical test (t-test) that indicates a certain significant level. If the CR value is greater than 1.96, there is significance with a 95% confidence level [27].

Validity and Reliability Test

Instrument testing was first carried out with one-time testing of respondents outside the sample of this study using the test of validity (construct validity) and reliability (construct reliability). One way to test construct validity is judged by convergent validity. Convergent validity test with reflective indicators based on loading factor. Abdillah and Jogiyanto [28] suggested that a good loading factor value is more than 0.70, but a loading score of more than 0.50 has been considered to be practically significant. Table 2 shows the initial test results of convergent validity, which show that the instrument is valid and can be used at a later stage.

Table 2. Instrument Validity Test Results

Variable	Indicator	Loading Factor	Rule of Thumb
Immersion (IM)	IM1	0.655872	0.50
	IM2	0.866363	0.50
	IM3	0.891508	0.50
Telepresence (TL)	TL1	0.773323	0.50
	TL2	0.691972	0.50
Attitude (ATT)	ATT1	0.734119	0.50
	ATT2	0.850011	0.50
	ATT3	0.834069	0.50
	ATT4	0.836675	0.50

The reliability test of this study was measured through Composite Reliability. The Rule of thumb value of Composite Reliability must be greater than 0.70, although the value of 0.60 is still acceptable [28]. The reliability test results showed that the instrument meets the reliability value and can be used at a later stage, as shown in Table 3.

Table 3. Instrument Reliability Test Results

Variable	Composite Reliability	Rule of Thumb
Immersion (IMM)	0.862710	0.700
Telepresence (TL)	0.904250	0.700
Attitude (ATT)	0.887464	0.700

In addition, an experimental validity test was performed. Test instrument validity is different from experimental validity. An experiment is said

to be valid if the results obtained are only caused by the independent variable being manipulated (internal validity) and if the results can be generalized to situations outside the experimental settings (external validity) [29].

RESULTS AND DISCUSSION

Results of Web-VR Development

The virtual tourism content of the The Great Mosque of Jami' Malang was developed based on WebVR. WebVR used in this study is A-Frame. A-Frame is an open-source web framework developed by Mozilla to build HTML and JavaScript-based virtual reality (VR) experiences. A-Frame uses the WebVR API to gain access to VR headset sensor data (changing position, 360° view orientation, and hand control) to change cameras and render content directly to VR headsets. A-Frame was chosen because it supports most VR headsets. The results of the web-VR of the Great Mosque of Jami' Malang can be accessed on the following link <https://alun-alun-malang.glitch.me/>.

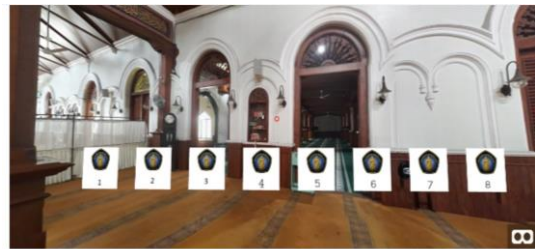


Figure 2. Web-VR of the Great Mosque of Jami' Malang

Outer Model Evaluation Results

The next step is testing and distributing The Great Mosque of Jami' Malang Web-VR content through experiments on tele-tourist tourists who have visited the content. After being treated, the visitors of the content are then given a questionnaire to be surveyed the results of their virtual experience consisting of immersion (IMM) and telepresence (TL) of attitudes (ATT) at the heritage destinations of the Great Mosque of Jami' Malang. Based on the results of survey testing using a questionnaire with the black box method, the web content can run well as expected.

Furthermore, the results of the evaluation of the suitability of the variable measurement model (outer model) can be seen in Table 5. Based on the test results of discriminant validity using AVE and composite reliability using Cronbach Alpha, it is known that all criteria used have good values.

Table 5. Results of Outer Model Evaluation

Parameter	Outer Model	Rule of Thumb	Result
Discriminant Validity			
Indicator			
AVE	IMM	0.511	0-1 Good
	TL	0.528	
	ATT	0.673	
Composite Reliability			
Indicator			
Cronbach's Alpha	IMM	0.840	≥ 0.500 Good
	TL	0.835	
	ATT	0.878	

Description:

IMM = Immersion, TL= Telepresence, ATT= Attitude.

Inner Model Evaluation Results

Table 6 displays the results of the evaluation of the structural model (inner model) of all the variables in this study that show good value based on the value of FIT and AFIT.

Table 6. Results of Inner Model Evaluation

Parameter	Inner Model	Rule of Thumb	Result
FIT	0.554	0-1	Good
AFIT	0.561	≥ 0.500	Good

Overall Model Evaluation Results

Table 7 shows the results of the evaluation of the overall model in this study which shows good values based on SRMR and GFI values.

Table 7. Overall Model Evaluation Results

Parameter	Overall Model	Rule of Thumb	Result
SRMR	0.297	Close to 0	Good
GFI	0.913	≥ 0.500	Good

Hypothesis Testing Results

Testing the hypothesis in this study was using α at the 5% level. Hypothesis 1 (H1) states that "immersion has a significant effect on tele-tourist attitudes on Web-Based Virtual Tourism of the Great Mosque of Jami' Malang" while in hypothesis 2 (H2) the researcher indicates that "telepresence has a significant effect on tele-tourist attitudes on Web-Based Virtual Tourism of the Great Mosque of Jami' Malang."

Table 8. Hypothesis Testing Results

H	Path Coefficient	CR	Rule of Thumb	Result
H1	0.794	9.33*	> 1.96	Sig. (+)
H2	0.746	9.86*	> 1.96	Sig. (+)

Table 4 shows the results of hypothesis testing using GSCA bootstrapping iteration. These results indicate H1 and H2 are accepted because each relationship between the variables in the

hypothesis has a significant influence based on the CR value and the direction of the positive relationship based on the path coefficient.

Hypothesis 1 can be accepted and in line with the results of previous researches [13-16]. It shows that the virtual environment on the Web-VR of the Great Mosque of Jami' Malang has been able to provide challenge-based immersion in the form of encouragement to complete goals. It provides an immersion system that has ability to look around freely and build imaginative immersion from the theme of heritage tourism as if they were in a virtual environment. Therefore, immersiveness is able to create changes in visitor attitudes such as feeling like, feeling enjoying, feeling interested, and feeling memorable towards virtual tourist destinations. The positive direction of the relationship between the effect of immersion and attitude shows that the better the immersion presented on the virtual destination will further enhance the positive attitude of the tele-tourist.

In addition, hypothesis 2 shows the accepted results, and the results of this study are in line with the results of the previous studies [13-17]. These results indicate that the virtual environment in a virtual destination has been able to create a feeling of self-location that is feeling closed access to the virtual environment and able to provide the ability for possible action such as being able to move actively freely. Therefore, telepresence is considered capable of creating changes in visitor attitudes such as feeling like, feeling enjoying, feeling interested, feeling and feeling memorable towards virtual tourist destinations. The positive direction of the relationship between the influence of telepresence and attitude shows that the better the telepresence that is presented on the virtual destination will further enhance the positive attitude of tele-tourist.

CONCLUSION

The results of this study indicate the Web-Based Virtual Tourism content of The Great Mosque of Jami' Malang is considered capable of providing virtual experiences in the form of a sense of physical presence (immersion) and a feeling of psychological presence (telepresence). Thus, the virtual experience that visitors experience while in the virtual environment is able to affect the attitude of virtual visitors towards virtual destinations, which tend to feel like, enjoy, feel attractive and memorable destinations towards the virtual destination.

Therefore, in the future, visitors can rely on Web-Based Virtual Tourism of the Great Mosque of Jami' Malang to complete the actual visit or even substitute the actual visit. It was to pay more attention to visitor management, preventing the accumulation of tourist flows at one point, carrying capacity of the site, and tourist safety protocols during the COVID-19 pandemic. It was also to maintain the sustainability of the Great Mosque Jami' Malang as a tourist destination for cultural heritage by providing virtual tourism that allows tourists to travel from home or staycation.

Due to the still rarely use of virtual tourism in tourist destinations in Indonesia, future research is expected to develop virtual tourism content. It is not only in the form of Web-VR image gallery but also in the form of 360° panoramic static images or 3D virtual tours [10] because it is proven to influence visitor attitudes towards destinations virtual. Future studies are expected to continue in testing the attitude of visitors to the interests of actual tourist destination visits according to the TAM model, which shows that attitudes can predict the likelihood of actual visit interest. In addition, further research can add objects by testing other virtual experience antecedents such as flow [30] after visiting virtual tourism content to get a wider view of virtual experiences.

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Management Principle of Lake Toba Tourism Destination: Local People's Perception

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Abstract

In tourism development, community participation is very important. Community participation does not just appear but must start from the correct perception of tourism. The local community, with all their perceptions about tourism management, have already been involved in tourism management. The aim of the research are to find out the local people's perception to the principal tourism destination management and to find out the model of sustainable tourism development in Simanindo District, Samosir Regency. The type of research is social survey and descriptive-quantitative. The technique used in sampling is the Franc Lynch method, with a sample of 95 people as respondents, aged 15-64 years was obtained. The data type used represents primary by using a questionnaire with a Likert scale in each question. Data analysis techniques were using value perception and multiple regression analysis. The result from this research showed: 1) The percentage of the average value of the independent variable is 85%, this means that the perception of the local community on the principles of managing Lake Toba tourist destinations are in positive or good areas 2) Sustainable tourism development has a positive relationship and is influenced simultaneously by service, attraction, human resources, environment, and participation. Therefore, the model of sustainable tourism development should be stressed on the attraction and the human resource in the Simanindo District.

Keywords: Community tourism development, sustainable community, sustainable tourism.

INTRODUCTION

Lake Toba is a crater lake covering an area of 1,145 km² in the center of which lives an island with an area that is almost comparable to the area of Singapore. Lake Toba is the largest lake in Southeast Asia and the second largest in the world after Lake Victoria in Africa. Lake Toba also includes the deepest lake in the world, which is around 450 meters. Lake Toba is estimated to have formed after a supervolcanic eruption around 73,000-75,000 last year. At that time, 2,800 km cubic of volcanic material was spewed out by Mount Toba, which erupts until volcanic dust in the wind spreads to half of the earth's territory. Its eruption occurs for one week, and the catapult reaches 10 km above sea level. That is why Lake Toba can be said to be a natural miracle in North Sumatra Island[1].

The Wonderful of Lake Toba and the tourism potential surrounds the Simanindo District are valuable assets for the regional and central government because it is one of the country's foreign exchange earnings. The tourism industry that is built will certainly have a huge impact, such as increased income, new job creation, and positive economic growth through tourist visits. The reality found is different according to the Central Statistics Agency (BPS). The number of

foreign tourists entering North Sumatra through Kualanamu Airport in January 2016 decreased by 47.41% compared to December 2015, whereas compared to January 2015, there was a decrease of 41.69%. All tourism in North Sumatra has decreased, including Lake Toba [2].

The number of Nusantara tourists visits during the 2015 holiday season to the Lake Toba Destination also decreased compared to the same holiday season in 2014. The Head of the Destination Management Organization (DMO) explained the number of Nusantara Tourist visits to the Lake Toba Destination through the entrance of Parapat Simalungun Regency reached an average of 22,000 lives every day, where tourists were dominated from Riau and West Sumatra.

It was departing from government regulation Number 50 of 2011 concerning the National Tourism Development Master Plan for 2010-2025. The central government finally made Lake Toba one of the ten priority tourism destinations the government will develop. The vision of this government regulation is to make Lake Toba a Landscape Scenery and Geopark. The purpose of this regulation itself is to increase foreign tourist arrivals to 1 million people in 2019. The target market for foreign tourists is targeted at ASEAN (Malaysia and Singapore), EUROPE (the Netherlands and France), Australia, America), while the domestic tourist market, such as big cities in Java and Sumatra [3].

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The Lake Toba tourism area development strategy emphasizes Attractions, Amenities, and Accessibility which are mostly physical development. In fact, the image of tourist destinations that also contributes to the presence of tourists is not only formed through tourist infrastructure, attractions, and natural beauty. Rather, it was also formed by the attitude of the local community around tourist destinations. So, the development of the Lake Toba tourism area also had to get support from the surrounding community.

In tourism development, especially Lake Toba, community participation is an important part. Community participation is one of the determining factors as well as an indicator of the success and sustainability of development. The value of social capital contained in community participation is one that shapes tourism development. Some areas, such as Bali and Yogyakarta, managed to become tourist destinations by empowering local people to contribute to increase development and maintain tourism. Therefore, the development of tourism must directly involve the local community and its surroundings.

Development must apply the principles of decentralization, move from the bottom (bottom-up), actively involve the community (participatory), carried out from and with the people (from and with people). Likewise, tourism management requires the involvement of all stakeholders in the tourism sector to integrate the tourism management framework. These stakeholders must be able to integrate and be represented in the planning, development, and operation of a tourist destination.

Tourism management must be synergized in meeting management principles. Required a management method that ensures the involvement of all stakeholders of tourism, include local community participation. Of course, community participation does not just emerge but must start from the correct public perception of tourism. After the correct perception is formed, then the community can be actively involved in planning, implementing, monitoring, receiving, and utilizing the results of tourism development.

Wienburg and Wilmot [4] stated that perception is a way of giving meaning, whereas Verderber [5], perception is interpreting sensory information. Perception enables humans to gain new knowledge. Perception transforms sensation into information. If the sensation is a sensory

work process, then perception is the way individuals process the sensory data into information so that it can be interpreted.

The explanation above shows that human perception is unique. The uniqueness lies in the different perceptions among humans of the same stimulus. Humans can be biologically and psychologically having many similarities, but their perceptions of objects will never be the same. The greater the biological differences and experiences between individuals, the greater the perceived disparity between them. Conversely, the smaller was the biological differences and experiences between individuals, the smaller the disparity in the perception of humans with the outside world.

Group perception occurs when some individuals have the same perception of the outside world. Communication that occurs in a particular group is easier to take place but will be more complex if it involves different backgrounds among communication actors. It is related to the statement of Samovar [6], perception is how culture teaches its members to see the world differently. That is, culture influences how each member perceives, views, or makes sense of something.

Perception, if linked to an intercultural context, arises because each person's judgment and selection of others is measured based on the inclusion of his own culture. Next, the perception will choose what is accepted or rejected by the communication participants. The same perception will facilitate communication participants to achieve the expected quality of communication results.

The people in Simanindo District have a different cultural background from tourists because they were born and raised in the area of the original Batak Toba community. Knowledge or culture experience were very different from tourists. All references receive according to their cultural identity will determine the framework or how to make sense of something.

Batak people prefer to be called *namaradat*, have *adat* (custom, tradition) rather than religion because if they are not religious, they are not fit to be members of the community. Batak people will continue to practice the teachings of Batak customs even though they have embraced Christianity. In this case, the culture as a Batak community will be stronger than Christianity.

The Batak community is not considered to be something very strict, but if someone is called *naso maradat*, then that person is no longer

eligible to be a member of the community. The Batak culture upholds its honor as *Anak Ni Raja* and *Boru Ni Raja*, which is implemented in *Dalihan Natolu* (Toba Batak kinship). The meaning of *Anak Ni Raja* and *Boru Ni Raja* for the local community is a form to act respectfully. They need to be polite to Batak people, like politeness towards the sons and daughters of the king.

The definition of tourism in law No. 10 of 2009 emphasizes the services provided by the community and the principles of sustainable tourism management. According to Dowling and Fannel [7], services to tourists must be provided. Of course, it is contrasted with the perceptions arising from the culture of the Batak people in the Simanindo District, who acted like others should respectfully polite to them as the sons and daughters of the king. Not to mention the relatively high prices of tourism products, making tourists deterrent and reluctant to return.

Simanindo District, with its various tourism potentials accompanied by the development strategy of the Lake Toba tourism area, turned out to be contrary to the arrival of foreign tourists through the doors of Kualanamu airport, which tends to decline. It is interesting to study, especially if it is related to the culture of the local community. The local community perception who worked in the field of tourism businesses need to be investigated because it is one of the key factors to the success of sustainable tourism development.

Based on the literature search conducted, no research discusses the public perception of management principles Lake Toba tourism destinations. However, there have been many similar studies. Hariana and Ika researched on community perceptions of the development of the Gowa area Peteng as a tourist attraction in the village of Jimbaran, South Kuta, District of Badung. The results showed that the public perception of the development of tourist attraction in Goa Peteng is very good, with an average overall 4.54 out of 100 people [8].

Study conducted by Manalu and Panata in 2012 informed that the community's perception of ecotourism development was positive if tourism object was developed as an ecotourism village. The requirement of tourism development must refer to the concept of ecotourism [9].

In 2011, Latupapua conducted research on public perception toward beach tourism attraction. The study concluded that the visitor's perception emphasized the need for local community involvement from planning to development [10].

Based on the context of the problem that has been described previously, there is a research framework as shown in Figure 1. Then, the objective of this study was to find out local community perceptions of the principles of tourism management in the Simanindo District and to find out the local community-based sustainable tourism development model in the Simanindo District.

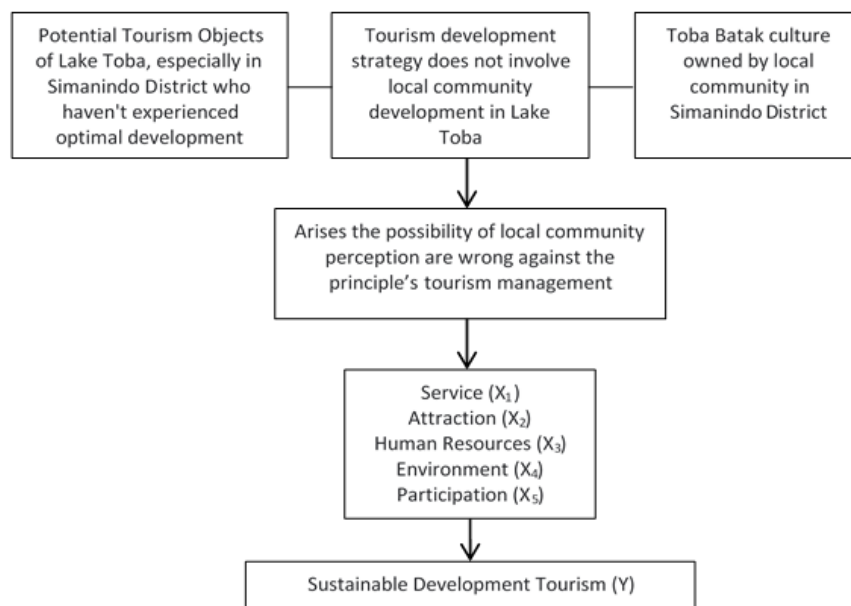


Figure 1. Research Framework

MATERIAL AND METHODS

This research was conducted in Simanindo District, Samosir Regency, North Sumatra Province, and carried out in March - October 2018. The study site was selected because Simanindo is located exactly on the shores of Lake Toba, which connected to the dock of Parapat. In addition, Simanindo District had a wealth of natural attractions, history, culture, and local wisdom that could become attractions for tourists.

Data Collection

The population is a generalization area consisting of objects or subjects with certain qualities and characteristics determined by researchers to be studied and concluded [11]. The population of this study is the Simanindo community aged 15-64 years. Based on data obtained from the Central Statistics Agency (BPS) of Samosir Regency in 2016, it is known that the population of Simanindo District aged 15-64 years amounted to 11,929 people. The population sample was calculated using the Frank Lynch formula [12]:

$$n = \frac{Nz^2 \times p(1-p)}{Nd^2 + z^2 \times p(1-p)}$$

Description:

n = number of samples

N = total population

z = standard value according to the level of trust (1.96), the level of confidence is 95%

p = benchmark price (0.5)

d = error sampling (0.1)

n = 95.23 → 95, then the sample size is 95 respondents.

The sampling technique in this study is purposive sampling. Sugiyono [13] explained that purposive sampling is a sampling technique with certain considerations. In this case, the authors take a sample based on observations in the Simanindo District community who become workers in the field of tourism business. Besides being a productive local community, they also play a direct role in managing the tourism according to the business they are engaged in.

Data collection methods in this study are interviews and documentation. Interview and a list of questions (questionnaire) were given to research respondents. Study documentation was conducted by studying data from the Simanindo District office and the Statistics Indonesia website.

Types and sources of data in this study are primary and secondary data. Primary data was obtained directly from the source (field), through

questionnaire and interviews. Secondary data was obtained from literature studies in the form of official documents published by the Central Statistics Agency and other books, for example, population data.

Data Analysis

The variables in the study consisted of five independent variables, namely Service (X_1), Attraction (X_2), Human Resource (X_3), Environment (X_4), and Participation (X_5). And one dependent variable is the Sustainable Tourism Development variable (Y_1). The variables were based on Dowling and Fannel [7] that tourism management must pay attention to the following principles:

1. Tourism development must be based on local wisdom and a special local taste that reflects the uniqueness and cultural heritage and the uniqueness of the environment.
2. Preservation, protection, and improvement of the quality of resources form the basis for the development of tourism areas
3. Development of additional tourist attractions rooted in local cultural treasures.
4. Services to tourists based on the uniqueness of the local culture and environment.
5. Provide support and legitimacy for tourism development if proven to give positive benefits, but otherwise, control or stop the tourism activity if it exceeds the threshold.

The data analysis technique used in this study is quantitative data analysis to estimate the number of influences of several independent variables simultaneously or partially on the dependent variable. Therefore, each selected alternative answers to questions on the questionnaire respondents will be given a score or weighting by using a Likert scale [13].

The data analysis method used in this study is the analysis of perception value and multiple regression analysis. Analysis of perception value was used to answer the first problem formulation, and then multiple regression analysis was used to answer the second problem formulation. Perceptual data from respondents were analyzed using Perception Value Analysis (NP) [11].

$$NP = \frac{n}{N} \times 100 \%$$

Description:

NP = Perception Value (%) n = score obtained

N = maximum score

Then the class interval table and perception value criteria are set as follows.

Table 1. Class interval table and perception value criteria

No	Interval	Criteria	Information
1	<70%	Negative	Not good
2	≥ 70%	Positive	Well

Source: Sugiyono [11].

With hypothesis testing:

H₀ : Community perception of Simanindo District is negative towards the principles of managing Lake Toba Tourism Object Destinations

H₁ : Community perception of Simanindo District is positive towards the principles of managing Lake Toba Tourist Destinations

Regression analysis are used to determine the direction of the relationship between the independent and dependent variable, whether positively or negatively, increased or decreased related. Multiple regression analysis is a regression that uses more than one independent variable. The multiple linear regression model, as follows:

$$Y = a + b_1 X_1 + b_2 X_2 + b_3 X_3 + b_4 X_4 + b_5 X_5 + e$$

Description:

Y = Sustainable Tourism Development

X₁ = Service

X₂ = Attraction

X₃ = Human Resources

X₄ = Environment

X₅ = Participation

b₁ - b₆ = regression coefficient

e = error term

Regression is used because some previous research on perception uses regression as a method of analysis, for example, studies by Romadhoni [14] and Septyawan [15]. The influence of independent variables on the dependent variable was tested with a confidence level of 95% or $\alpha = 0.05$. Hypothesis testing was using the simultaneous test (F test) and partial test (t-test).

Validity and Reliability Test of Instruments

A validity test was done by comparing the value of *correlated items - the total correlation* on each question item against the value of the r variable. Sunyoto [16] stated that if the value of *correlated items-total correlation* $r_{count} >$ value of r_{table} and the value is positive, then the items in each research variable are declared valid. The value of r_{table} at $df = n-2 = 95 - 2 = 93$ and $\alpha = 0.05$ is 0.169. Validity Test is carried out with the help of SPSS 17.

Sunyoto [16] stated that the question item is called reliable if the respondents' answer to the

question is consistent from time to time. The reliability measurement uses the *Cronbach Alpha* statistical test. A construct is said to be reliable if it gives a *Cronbach Alpha* value > 0.60 [16]. Based on the result of validity and reliability, the instrument is good for the actual measurement.

RESULT

Classical Assumption Testing

A Classical Assumption Testing – Normality Test was done by making a *normal probability plot*. Data is said to have a normal distribution if the real line follows the diagonal line, and that's what happened in this research data.

Multicollinearity Test was used to measure the level of association/closeness of the relationship/influence between independent and dependent variables. To detect the presence of multicollinearity, it can be seen from the value of tolerance and variance inflation factor (VIF). If the tolerance value < 0.10 and the VIF value > 10 , then the multicollinearity and vice versa, if the tolerance value > 0.10 and VIF value < 10 , it is said that there is no multicollinearity. This research data shows there are no independent variables that have a tolerance value of less than 0.10, which means there is no correlation between independent variables.

A heteroscedasticity test was used to test whether or not the variance of residual observations is one with the other observations. If the residuals have the same variance, it is called homoscedasticity and vice versa. If the variance is not the same, then it is said to be heteroscedasticity. A good equation is if there is no heteroscedasticity.

The heteroscedasticity test in the SPSS program was done by making a scatterplot graph between Z prediction (ZPRED), which is an independent variable and its residual value (SRESID), which is the dependent variable. Based on the scatterplot graph, it can be seen that there are no clear and regular patterns either narrowed, widened, or wavy. The points spread either above or below 0 on the Y axis, so it is said there is no heteroscedasticity. But the heteroscedasticity test using scatterplots is feeble because it only relies on visual analysis. To get certainty, it is necessary to test the hypothesis by using the Glejser test. The Glejser Test proposes to regress the absolute residual value as the dependent variable with the following equation:

$$|e| = b_1 + b_2 X_2 + e$$

If the independent variable significantly influences residuals, then there is an indication of heteroscedasticity. Conversely, if the independent variable does not significantly affect residuals, then there is no indication of heteroscedasticity. In this research, the t-statistic value of all explanatory variables is not statistically significant, so it can be concluded that this model does not experience heteroscedasticity problems.

Analysis of Perception Value

Perception value analysis presented data and figures obtained from field observations, then presented in tabular form. Data analysis was presented to find the mean (average), and then conclusions were drawn based on the figures obtained. The average score and the percentage of local people's perceptions of the management principles of tourist destinations were shown in Table 2.

Table 2. Perception Value Analysis

Descriptive Statistics		
	N	Mean
Service	95	4.4947
Attractions	95	4.3579
Human Resources	95	4.1684
Environment	95	4.4211
Participation	95	4.0491
Valid N (listwise)	95	4.2982 (85%)

Source: Research Data Processing

The percentage of the average value of the independent variable is 85%. It means that the perception of the local community on the principles of managing Lake Toba tourist destinations are in positive or good areas. Thus, the decision of H_0 is rejected and H_1 accepted.

Hypothesis Testing

F-Test (Simultaneous Significance Test)

This test was carried out to test the hypothesis that the variables service, attractions, human resources, environment, and participation have a significant simultaneous effect on the variable sustainable tourism development. The hypothesis testing criteria for simultaneous testing are as follows:

H_0 : the variables of service, attraction, human resources, environment, and participation simultaneously do not have a significant effect on the variable sustainable tourism development in Simanindo District.

H_1 : variable of service, attractions, human resources, environment, and participation simultaneously have a significant effect on the variable of sustainable tourism development in Simanindo District.

The influence of the independent variables on the dependent variable was tested by comparing the F_{count} and F_{table} at the 95% confidence interval or $\alpha = 5\%$. F_{count} can be seen in Table 3. Based on F-Test, it can be seen that the variable services, attractions, human resources, environment, and participation simultaneously have a significant effect on the variable sustainable tourism development in Simanindo District. It can be known because F_{count} was larger than F_{table} at the level of the confidence interval 95% or $\alpha = 0.05$. F_{count} is 11.542 while F_{table} is 2.31, then $F_{count} > F_{table}$, and the significance is less than 0.05. Thus, the decision of H_0 is rejected and H_1 accepted.

Table 3. F Test Results^b

Model	Sum of Square	df	F	Sig.
Regression	10.988 ^a	2	11.542	.000 ^a
Residual	16.945	89		
Total	27.932	94		

a. Predictors: (Constant), Participation, Environment, Services, Attractions, Human Resources

b. Dependent Variable: Sustainable Tourism Development

Source: Research Data Processing

Analysis of Multiple Linear Regression

Multiple regression analysis is a regression that uses more than one independent variable. Table 4 shows the results of regression through data processing with the help of SPSS 17 software.

Table 4. Regression Estimation Results

Coefficients ^a				
Model		Unstandardized Coefficients	Standardized Coefficients	Sig.
		B	Std. Error	
1	(Constant)	591	589	.319
	Service	.043	.140	.760
	Attractions	.326	.162	.048
	Human Resources	.287	.140	.043
	Environment	.168	.136	.218
	Participation	.045	.088	.611

a. Dependent Variable: Sustainable Tourism Development

Source: Research Data Processing

The data processing produces a multiple linear regression model as follows:

$$Y = 0.591 + 0.043 X_1 + 0.326 X_2 + 0.287 X_3 + 0.168 X_4 + 0.045 X_5 + e$$

The multiple linear regression equation was used to explain the effect of independent variables on the dependent variable simultaneously or partially in order to test the

proposed hypothesis. The results of multiple regression can be concluded as follows:

1. A constant of 0.591 states that if the independent variable in this study does not exist or is zero, then sustainable tourism development in Simanindo District is still exists.
2. The service has a positive value with a value of 0.043. It means services have a positive relationship to sustainable tourism development.
3. The attraction has a positive value of 0.326. It means that the attraction has a positive relationship with sustainable tourism development.
4. Human Resources has a positive value of 0.287. It means that human resources have a positive relationship to sustainable tourism development.
5. The environment has a positive value of 0.168. It means that the environment has a positive relationship to sustainable tourism development.
6. Participation has a positive value with a value of 0.045. This participation has a positive relationship to sustainable tourism development.

The coefficient of determination (R²)

The coefficient of determination (Adjust R Square) shows how much the independent variable explains the dependent variable. The value of R Square is zero to one. If the value of R Square is getting closer to one, then the independent variables provide all the information needed to predict the dependent variable.

Table 5. Determination Coefficient Results

Summary Model ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.627 ^a	.393	.359	.43634
a. Predictors: (Constant), Participation, Environment, Services, Attractions, Human Resources				
b. Dependent Variable: Sustainable Tourism Development				

Source: Research Data Processing

Based on Table 5, the acquired R square (R²) is 0.393, which means variables of services, attraction, human resources, environment, and participation are simultaneously able to explain variable sustainable tourism development by 39.3%. The remaining 60.7% is influenced by other factors that were not examined.

Although the value of r square is 0.393, this model is still considered to be good. Considering that sustainable tourism development was not only influenced by local communities but also variables that were not examined in this study; for example, variable of government, tourist, academics, and private parties. It is following the research of Dabphet, which identifies the key stakeholder in the implementation of sustainable tourism in two rural towns of Thailand [17]. This research finds two main stakeholders in sustainable tourism development, namely experts, who consist of tourism organizations, government departments, non-government organizations. The second is suppliers who consist of local communities and organizations of the local community [17]. In addition, that is also in accordance with the methods of tourism management, one of them is the consultation of all stakeholders [18].

T-test (Partial Test)

T-test result can be seen based on comparison of the t_{value} and t_{table} in Table 6. It explained that:

1. The service variable does not significantly influence the sustainable tourism development in the Simanindo District.
2. The attraction variable has a significant effect on Sustainable Tourism Development in Simanindo District.
3. The human resources variable significantly influences the Sustainable Tourism Development in Simanindo District.
4. The environment variable does not significantly influence the sustainable tourism development in Simanindo District.
5. The participation variable does not significantly influence the sustainable tourism development in Simanindo District.

Table 6. t test results

Variable	t _{count}		t _{table}	Decision
Service	0.307	<	1.66	H ₀ accepted H ₁ rejected
Attraction	2.008	>	1.66	H ₀ rejected H ₁ accepted
Human Resources	2.055	>	1.66	H ₀ rejected H ₁ accepted
Environment	1.241	<	1.66	H ₀ accepted H ₁ rejected
Participation	0.510	<	1.66	H ₀ accepted H ₁ rejected

Source: Research Data Processing

DISCUSSION

Local Community Perception

The local community perception of the principles of managing tourist destinations in Simanindo District is in a positive area by 85%. It is an enormous for sustainable tourism development in Simanindo. When local community perceptions on management principles tourism are positive, at the same time, the role of the community can be optimized for realizing sustainable tourism. Due to tourism development, it is not only the task of the government and private sector, but the most important thing is the role of local communities.

Community participation is one of the prerequisites for the application of the concept of good governance. Good governance, according to the United Nations Development Program (UNDP), is an agreement concerning state regulations that are jointly created by governments, civil society, and the private sector [19]. As well as tourism development, it cannot be separated from its role local community. The local community has various and unique resources, which are not owned by the government and private. These resources and uniqueness become the main driving element of sustainable tourism development.

Local Community Based on Sustainable Tourism Development Model

Based on the results of the regression estimation and simultaneous test, it is known that sustainable tourism development has a positive relationship and is influenced by simultaneous variables on service variables of attractions, human resources, environment, and participation. Therefore, sustainable tourism development based on local communities, can be directed at the following points.

1. Improving the ability of local community services to tourists visiting tourist destinations by prioritizing hospitality and a willingness to help.
2. Preservation and creation of both natural and cultural tourist attractions as a source of uniqueness and tourist attraction.
3. Increasing the capacity and quality of the community in the field of tourism.
4. Increasing the position and participation of the community in planning, implementing, monitoring, and evaluating tourism development.
5. Environmental Conservation

Sustainable tourism development that was based on local communities can be directed by increasing the capacity, role, quality, position, and role of the community [20,21]. However, based on test results partially, two variables significantly influence sustainable tourism development, namely attractions and human resources.

Tourist attractions are one of the crucial components of tourism [22]. There are two functions of attraction, first as a stimulant or tourism bait, and secondly as one of the staple tourism products and the principal destination factor for visitors. Tourism must be managed well by the local community, whatever its form, whether natural, cultural, or special interests. Massive exploitation, reluctance to preserve, and minus creation and innovation can eliminate attraction and even plausible to lose the label as a tourist destination.

The management of tourist attractions owned by Simanindo is inseparable from the support of the local community. Local community support started by preserving natural conditions by providing rubbish bins, waste treatment, setting rules with stakeholders, and socializing it. Thus, the attractions of natural attractions are maintained in panoramic beauty. Nature and cultural preservation must be sustainable. It means they can be inherited from generation to generation, for example, by holding regular Toba Batak culture performances.

In addition, the important thing is to maintain the stability of water, air, flora, and fauna in the Simanindo. The development of a tourist destination does not always mean cutting down trees, destroys fauna habitat, and air pollution. Excessive exploitation of nature and neglecting the balance and conditions can certainly damage the environment. It can even shift the culture and behavior of local people. Therefore, local people and the government must control the licensing of tourist areas development that tends to transfer land functions.

Furthermore, preserving and enhancing tourist attractions can also be done with innovation and activities for cultural tourism and special interests [23]. Innovation and creativity are mandatory to stimulate something to do, something to see, and something to buy for tourists. Creativity and innovation can be done, for example, by organizing local transportation facilities to facilitate tourists visiting various tourist sites.

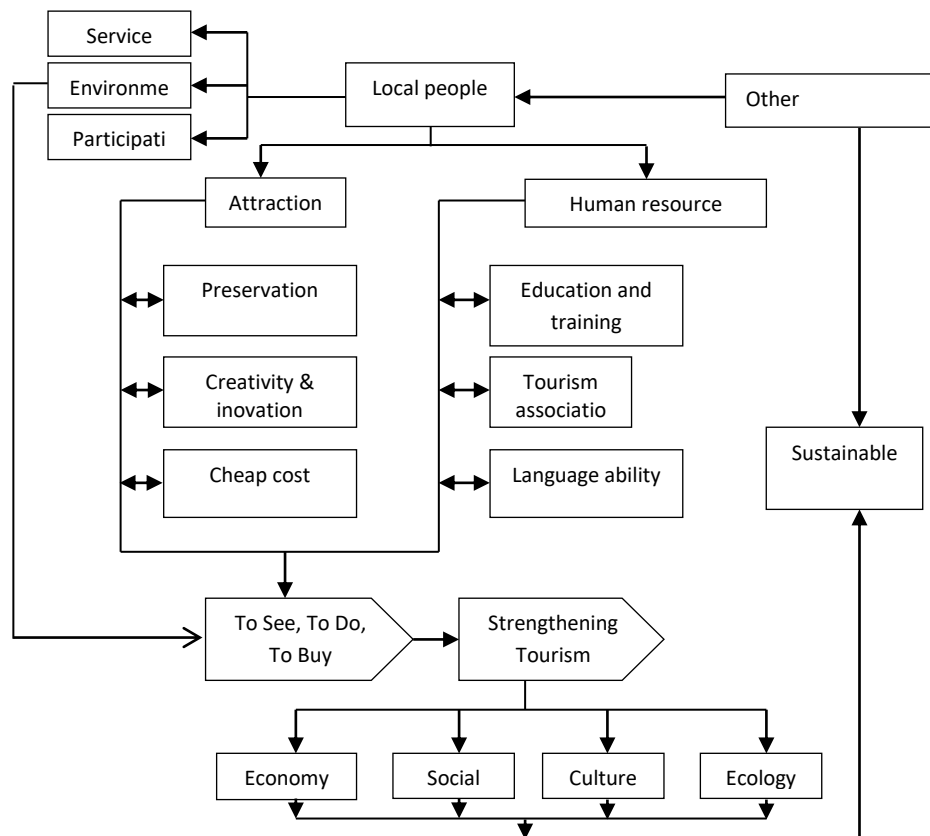


Figure 2. Model of Sustainable Local Community Based Sustainable Tourism Development in Simanindo District

Affordable prices also contribute to tourists choosing to enjoy the beauty of tourist attractions in Simanindo District. An expensive entry fee to enjoy the beauty and uniqueness of tourist attractions in the Simanindo District can result in a decline in tourist interest and is seen as a barrier to the flow of tourists to the Simanindo District. Certainly, the analysis of prices is one of the trickiest issues to deal with in tourism economics [24].

Based on this research, attractions and human resources have a significant positive influence on sustainable tourism development in Simanindo District. It means that the quality of human resources must be improved to support tourism development. Human resources, in this case, local communities, are required to understand tourism, play an active role in tourism associations, and mastering foreign languages.

Tourism can be explored further if the local community joins the tourism association. The association provides benefits and great opportunities for local people to develop tourism. Joining the association provides at least five benefits, including greater learning

opportunities, increased experience and insight, collaboration in social environments, expanding networks, and sources of inspiration and information. One of the prerequisites for tourism development can be achieved by the presence of local community associations concerned with tourism. Thus, local people have the willingness to participate, have joint goals, and cooperate in developing tourism with the various expertise and networks they have in the association. As pointed out in Glen and Mears, tourism associations are critical stakeholders within the tourism supply chain, as they act as a conduit between government and the private sector [25].

The thing that is no less important and a must for local people is to speak a foreign language. The ability to speak a foreign language is essential because tourists who visit also come from other countries. Inability in a foreign language can be an obstacle in communication. In fact, communication skill in an intercultural context is an important requirement for people in the tourism industry [26]. In addition, it also shows that tourist destinations are endemic to the world level.

CONCLUSION

The percentage of the average value of the independent variable is 85%, which means that the perception of the local community on the principles of managing Lake Toba tourist destinations is positive. Strengthening the attractions and human resources is ultimately expected to increase tourism development that meets three criteria, i.e., *something to see, something to buy, something to do*. Thus, Simanindo District has strengthened its position as the best tourist destination choice. Furthermore, there will be satisfaction and loyalty of tourists so that sustainable development is achieved.

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Institutional Relationship Model to Realize a Sustainable Tourism Management in Pulau Merah Banyuwangi

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Abstract

Pulau Merah Beach must have sustainable tourism management that involves many institutions in the regional area as decision-makers and controls the regional plan. This research aims to analyze the institutional sector for tourism management on Pulau Merah Beach to support sustainability. Data were obtained through interviews with the Head of BAPPEDA, the Head of the Culture and Tourism Office, Spatial Planning Practitioners, Environmental Experts, and Local Communities. Data then analyzed with Interpretive Structural Modeling (ISM). There are four elements used to measure the institutional tourism management in Pulau Merah Beach, i.e. (1) elements of institutional (20 sub-elements); (2) elements of institutional problems (12 sub-elements); (3) elements of expected goals (11 sub-elements); (4) elements of the required program (11 sub-elements). The results of the analysis conducted show that DISBUDPAR is an institution with a role and authority in regulating tourism on Pulau Merah Beach, but it requires cooperation with other agencies to achieve sustainable management. The expected goals of tourism management in Pulau Merah Beach are sustainable, integrated, synergy, efficient, and sufficient, and firm law enforcement. However, there is no clear SOP between institutions. So, it can lead to a lack of integration between institutions and the emergence of unclear standards and measuring instruments. To achieve goals and resolve existing problems, designing several programs is required, such as forming a specific institution that handles the tourism management of Pulau Merah Beach, evaluating policies, and integrating tourism management's technical guidelines in the Pulau Merah Beach Area. If each key point can be optimized, it will be possible to realize sustainable tourism management on Pulau Merah Beach Banyuwangi.

Keywords: DISBUDPAR, institution, interpretive structural modelling, sustainable tourism.

INTRODUCTION

Tourism is one of the sectors that significantly influences the economy [1] and can continue developing [2]. The development of tourism can encourage a region's economy because it has a close relationship with economic growth, both economic growth due to the growth of tourism and vice versa. Thus, it is said that tourism is a bidirectional sector [3,4]. So, it is possible to have the tourism sector as the leading sector in a specific region.

Banyuwangi Regency has a dual role as a conservation and tourism area. It encourages local governments to create an integrated and comprehensive system between various sectors, institutions, and authorities to create a well formulate and manage Banyuwangi Regency. Based on Regulation Number 32 the Year 2009, environmental management includes structuring, utilization, development, maintenance and restoration, environmental supervision, and control. Pulau Merah is one of the tourism destinations listed on WPP III in Banyuwangi Regency. Pulau Merah tourism area is classified as marine tourism located in a coastal area.

Nevertheless, the problem then arises when a tourism destination has many visitors and causes ecosystem, social and economic problems. It may arise caused by the lack of regional planning, weak human resources, and small profits [5-8]. Local and regional institutions' role is necessary to overcome the existing and future problems in the tourism sector. The institution has a role in regulating policies and has better control in regional planning, significantly increasing tourism destinations innovation to become sustainable tourism [9].

The increase in the number of tourists heading to Pulau Merah causes an increase in the number of buildings, reduced land cover, increased waste generation, environmental pollution, traffic congestion, and reduced aesthetics due to the slum environment. If this condition is not handled, it will decline the image and competitiveness of Pulau Merah Beach as a mainstay tourism area in Banyuwangi Regency. Thus, there is a need for a form of synergy between existing institutions in the Banyuwangi Regency, both formal and informal, which are directly related to the development and management of tourism [10]. To show the hierarchy of inter-institutional relationships in order to achieve sustainable tourism management on Pulau Merah Beach, we used Interpretive Structural Modeling (ISM).

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Interpretive Structure Modelling (ISM) is a form of analysis that can identify structures and hierarchies between groups based on the relationships that occur in a complex system with the variables that can define the problems that occur [11,12]. A research showed that a study using ISM can compile a hierarchical structure of 16 support systems and shows that the scarcity of natural resources is the main key to realizing the tourist destination of Borobudur Temple as green tourism [13]. ISM is widely used primarily to identify driving and inhibiting factors in tourist destination management [14,15,16]. Therefore, the purpose of this study is to analyze the institutional sector for tourism management on Pulau Merah Beach to support sustainability. So, it is hoped that by using ISM, the hierarchical structure of the institutions related to tourism development and management in Banyuwangi Regency can be identified.

MATERIAL AND METHOD

Study Site

Pulau Merah Beach is located in Pancer, Banyuwangi Regency, approximately 67 km from downtown of Banyuwangi. It has a 3 km long coastline with white, red, and fine sand. Not far from the shore, there was a hill with a height of approximately 300 m, and it has become a characteristic and icon of Pulau Merah.



Figure 1. Pulau Merah Beach

Data Collection

Primary data in this study were obtained by exploring the opinions of respondents with structured interviews using questionnaires. Respondents in this study were selected based on their knowledge of tourism management and regional development in the Banyuwangi Regency. So the respondents of this research are the Head of Bappeda, the Head of the Culture and Tourism Office, Spatial Planning Practitioners, Environmental Experts, and Local Communities. In addition, secondary data used

comes from tourism planning documents owned by Banyuwangi Regency. The elements that interviewed to the respondents include: 1) elements of institutional (20 sub-elements); 2) elements of institutional constraints (12 sub-elements); 3) elements of expected goals (11 sub-elements); 4) elements of the required program (11 sub-elements).

Data Analysis

Interpretive Structural Modeling (ISM) is used to produce a model of institutional relations related to tourism in Pulau Merah Banyuwangi. ISM is an interactive method to identify and clarify the relationship between specific variables in an unclear or complicated to understand problem [10,19]. In this method, several elements that directly or indirectly related were arranged based on a systematic model in the form of images and sentences [21,22,23].

Brainstorming with experts is carried out first to determine the elements and sub-elements in managing tourism institutions. Then the ISM Stages will be divided into two parts, namely the arrangement of the hierarchy and classification of sub-elements [24]. The basic principle is identifying structures within a system that provide high-value benefits to formulate the system effectively and for better decision-making. Analysis using Interpretive Structural Models (ISM) has several stages [12,13,25], namely:

1. **Identification of elements;** Elements were obtained from in-depth interviews with several experts, including the Head of Bappeda, Head of the Culture and Tourism Office, Spatial Planning Practitioners, Environmental Experts, and Local Communities. The elements that are considered to play a role in the development of sustainable tourism management on Pulau Merah Beach are (1) elements of institutional consisting of 20 sub-elements, (2) elements of institutional problems, which consist of 12-sub elements, (3) elements of expected goal, which consists of 11 sub-elements, and (4) elements of the expected program, which consist of 11 sub-elements. Institutions, both formal and informal, have a crucial role in the development of sustainable tourism [10].
2. **Structure Self-Interaction Matrix (SSIM);** This matrix shows the relationship between the intermediaries in the system. This

matrix is commonly referred to as the VAXO matrix because of these symbols. V means that factor in row table will influence factor in column table, A means that factor in column table will influence factor in row table, X means that there is a bidirectional relationship, and O means that there is no relation between the factors.

3. **Reachability matrix;** This matrix was arranged by converted SSIM to a binary number (1 or 0) per transformation rules.
4. **Matrix of driver power-dependent;** In this matrix, the elements will be grouped into four categories based on its value of driving power and dependence. The value of driving power for each enabler is the total number of the enabler (including itself), which may help to attain it. Meanwhile, the value of dependence for each enabler is the total number of the enablers (including itself), which may help in attaining it. In the power level management diagram, there are four clusters [25,26], namely:
 - (a) **autonomous cluster**, factors that have weak driving power and dependence or do not depend on other factors
 - (b) **dependent cluster**, a factor that has a weak driving force with a strong dependence so that it cannot influence other factors but can be influenced by related factors
 - (c) **linkage cluster**, this factor has a strong driving force and dependence, so it is unstable and can have an impact on factors other
 - (d) **cluster driving factor**, a strong factor on the driving force with a weak dependence, thus it can affect other factors.
5. **Converting into an ISM diagram;** The structural model from the final reachability matrix can be generated through the vertices or nodes and lines of edges.

RESULT AND DISCUSSION

The institution is an essential element in sustainable tourism management, especially in Pulau Merah Beach. It plays a role in determining the direction, policies, strategies, and programs of tourism development that must be in harmony and synergy with national tourism development policies. Based on a previous study [16] and expert opinion, then four elements were selected to measure the institutional management of tourism in Pulau Merah Beach, i.e. (1) elements

of institutional (20 sub-elements); (2) elements of institutional constraints (12 sub-elements); (3) elements of expected goals (11 sub-elements); (4) elements of the required program (11 sub-elements).

Elements of Institutional in the management of Pulau Merah Beach Tourism

Identification of institutional showed that there are 20 sub-elements. The first step in ISM analysis is to arrange a structure self-interaction matrix (SSIM) from sub element in elements of institutional and are compared, then marked with four symbols (V, A, X, O), which can be seen in Table 1.

Table 1. Elements of institutional Structure self-interaction matrix (SSIM)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	X	X	X	X	X	X	X	X	X	X	X	V	X	X	X	X	X	X	X	X
2		X	X	X	X	X	X	X	X	X	X	A	A	X	A	X	X	X	X	X
3			X	X	A	X	X	X	V	V	V	V	V	X	X	X	X	X	X	X
4				X	A	A	A	X	X	X	V	V	X	X	X	X	X	X	X	X
5					X	X	O	X	X	O	O	X	O	X	X	X	X	X	X	X
6						V	V	V	V	V	V	X	X	V	X	V	V	X	X	X
7							O	X	X	X	X	X	X	X	X	X	X	X	X	X
8								X	X	X	A	X	X	X	V	A	X	X	X	X
9									V	X	X	X	X	A	X	X	X	X	X	X
10										A	A	X	X	X	A	X	X	X	X	X
11											X	X	X	X	V	A	V	X	X	X
12												X	X	V	X	X	X	X	X	X
13													X	X	X	X	X	X	X	X
14														X	X	X	X	X	X	X
15															X	X	X	X	X	X
16																V	V	X	O	
17																	X	X	V	
18																			A	V
19																				O
20																				

Description:

- 1) Department of culture and tourism (DISBUDPAR)
- 2) Police
- 3) Department of Spatial Planning and Agrarian Affair
- 4) Department of Traffic and Transportation (DLLAJ)
- 5) Department of Building and Settlement Planning
- 6) Department of Regional Planning and Development (BAPPEDA)
- 7) Integrated Licensing Office
- 8) District Government
- 9) East Java Provincial Government
- 10) Village government
- 11) Municipal Police (SATPOL PP)
- 12) Association of Indonesia Hotel and Restaurant (PHRI)
- 13) Non-Governmental Organizations (NGOs)
- 14) State Forest Enterprise (Perhutani)
- 15) Association of Indonesian travel agencies (ASITA)
- 16) Village Consultative Office (BPD)
- 17) Department of Environment
- 18) Cultural Community
- 19) Central Government
- 20) Bank

Based on Table 1, the majority of the sub-elements matrix consists of symbol X, which means that these sub-elements influence one another (bidirectional). Then, from the SSIM results, a reachability matrix was compiled, which can be seen in Table 2. After identifying the reachability matrix, each of these sub-elements of institutional is then arranged in a matrix of power and dependent drivers (Fig. 2).

Table 2. Reachability matrix

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	DP	RANK	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20	1
2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17	4
3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	19	2
4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17	4
5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16	5
6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	19	2
7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	18	3
8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15	6
9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	19	2
10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15	6
11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17	4
12	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16	5
13	0	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16	5
14	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	19	2
15	1	1	0	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16	5
16	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15	6
17	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17	4
18	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15	6
19	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	19	2
20	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16	5
DEPT	19	20	14	18	16	10	17	16	19	20	17	16	16	18	18	15	17	19	18	18			
RANK	2	1	7	3	5	8	4	5	2	1	4	5	5	3	3	6	4	2	3	3			

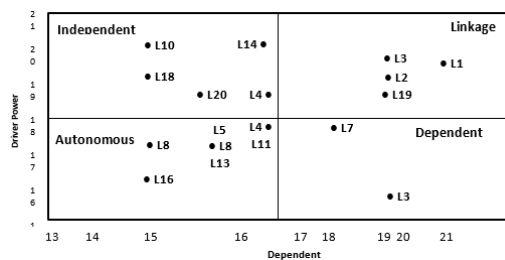


Figure 2. Matrix of Driver Power-Dependent (Elements of Institutions)

Description:

Autonomous sector (7 sub-elements)

- 1) Police (L2)
- 2) Department of Building and Settlement Planning (L5)
- 3) Municipal Police (SATPOL PP) (L11)
- 4) Association of Indonesia Hotel and Restaurant (PHRI) (L12)
- 5) Non-Governmental Organizations (NGOs) (L13)
- 6) Village Consultative Office (BPD) (L16)
- 7) Department of Environment (DLH) (L17)

Dependent sector (2 sub-elements)

- 1) Department of Spatial Planning and Agrarian Affair (DTRP) (L3)
- 2) Integrated Licensing Office (BPT) (L7)

Linkage sector (4 sub-elements)

- 1) Department of Culture and Tourism (DISBUDPAR) (L1)
- 2) Police (L2)
- 3) East Java Provincial Government (L9)
- 4) Central Government (L19)

Independent sector (7 sub-elements)

- 1) Department of Traffic and Transportation (DLLAJ) (L4)
- 2) Department of Regional Planning and Development (BAPPEDA) (L6)
- 3) Village Government (L10)
- 4) State Forest Enterprise (Perhutani) (L14)
- 5) Association of Indonesian travel agencies (ASITA) (L15)
- 6) Cultural Community (L18)
- 7) Bank (L20)

The autonomous sector has a low driving force and a low level of dependence, so they do not depend on other sub-elements. The dependent sector has a low thrust and very dependent on other institutions. It also can not encourage other institutions (their position is weak in tourism management in the Pulau Merah Beach).

The linkage of the institutions' sector has excellent potential if appropriately managed

because they have a strong thrust but still have a high level of dependence on institutions. Institutions in the independent sector do not have a robust hierarchical relationship but have a high thrust in the tourism management system. The results of previous research [24] showed that the government usually operates independently. However, it strengthens, empowers, and benefiting each other if there are common goals and interests.

The power-dependent driver matrix results compiled into an ISM model with a hierarchical structure from institution sub-elements of tourism management in Pulau Merah Beach. There are six hierarchical levels (Fig. 3).

The first level is the Department of Culture and Tourism (DISBUDPAR), which is a key sector for tourism management institutions. DISBUDPAR's role in managing regional tourism is the result of decentralization, in which local governments have the authority to manage their regions [27]. However, DISBUDPAR cannot work independently in managing the regional tourism sector. It requires cooperation with other institutions. It is confirmed by previous researches that DISBUDPAR has not been able to carry out optimal planning, maintenance, and supervision of tourist destinations in the area [28,29]. At the second level, there is the Department of Spatial Planning and Agrarian Affair, BAPPEDA, East Java Provincial Government, State Forest Enterprise (Perhutani), and the Central Government. They are expected to provide support and advice for the planning and management process of sustainable tourism.

At the third level, it consists of the Integrated Licensing Office, which can grant licenses in Banyuwangi Regency, especially in Pulau Merah Beach. Based on the Regulation of the Ministry of Tourism No. 18 of 2016 about Tourism Business Registration, to register a tourism business, technical licensing is required following applicable regulations. So, it has a vital role in preventing illegal tourism businesses and damage tourist destinations.

The performance of institutions in level three is beneficial for the successful implementation of the duties and functions of institutions at the next level (level four), namely the Police, Department of Traffic and Transportation (DLLAJ), Department of Building and Settlement Planning, Municipal Police (SATPOL PP) and Department of Environment. Each of these agencies performs its respective duties and functions.

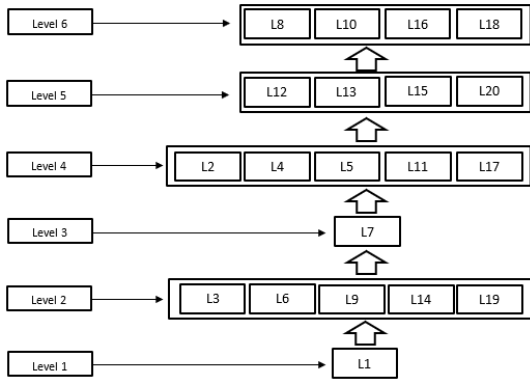


Figure 3. Hierarchy structure of tourism management institutions

Description:

Level 1

L1 = Department of Culture and Tourism (DISBUDPAR)

Level 2

L3 = Department of Spatial Planning and Agrarian Affair (DTRP)

L6 = Department of Regional Planning and Development (BAPPEDA)

L9 = East Java Provincial Government

L14 = State Forest Enterprise (Perhutani)

L19 = Central Government

Level 3

L7 = Integrated Licensing Office (BPT)

Level 4

L2 = Police

L4 = Department of Traffic and Transportation (DLAJ)

L5 = Department of Building and Settlement Planning

L11 = Municipal Police (SATPOL PP)

L17 = Department of Environment (DLH)

Level 5

L12 = Association of Indonesia Hotel and Restaurant (PHRI)

L13 = Non-Governmental Organizations (NGOs)

L15 = Association of Indonesian travel agencies (ASITA)

L20 = Bank

Level 6

L8 = District Government

L10 = Village Government

L16 = Village Consultative Office (BPD)

L18 = Cultural Community

Level five consists of the Indonesian Hotel and Restaurant Association (PHRI), Non-Governmental Organizations (NGOs), the Association of Indonesian Travel Agencies (ASITA), and banks. The role of PHRI is significant for other agencies in managing tourism in Pulau Merah Beach. Cooperation between NGOs must also continue to provide much input for planning the Pulau Merah tourism. ASITA's role is to conveying aspirations for the improvement and development of regional tourism. Banks play an active role in financing tourism management on Pulau Merah Beach.

It consists of the district government, village government, the Village Consultative Office (BPD), and the Cultural Community at level six. The Village Government plays an active role in

dealing with the people's socio-cultural and economic problems in Pulau Merah Beach. The village and district governments also motivate the cultural community to continuously preserve the culture and develop the cultural show as tourist attractions. The Village Consultative Office (BPD) role is to listen to the community's aspirations and provide policy support in village and district governments. So, the policies are in favor of the community, and environmental sustainability can be created.

The role of the Institution at level one is to assist the Institution at subsequent levels. So that synergy can be created between institutions. DISBUDPAR cannot carry out tourism planning and management tasks without support from other agencies. The role of DISBUDPAR is to develop tourist areas by building infrastructure, providing supporting facilities and infrastructure, coordinating between related agencies and the private sector, and promoting both inside and outside the country [18]. In line with this, DISBUDPAR can increase tourists' numbers by conducting promotions both at home and abroad and guiding tourism awareness groups [30].

Elements of Institutional Problem in the management of Pulau Merah Beach Tourism

The elements of institutional problems consist of 12 sub-elements. The first step in ISM analysis is to arrange a structure self-interaction matrix (SSIM) from sub-element in elements of the institutional problem and compare them, then marked with four symbols V A X O (Table 3).

Table 3. Elements of institutional problem Structure Self-Interaction Matrix

	1	2	3	4	5	6	7	8	9	10	11	12	
1		X	X	X	X	X	X	X	X	A	X	X	
2			X	A	X	X	X	X	X	A	X	X	
3				X	A	X	X	X	V	X	A	A	
4					X	X	X	X	X	X	X	V	
5						V	X	A	A	A	A	V	
6							X	X	X	X	X	X	
7								X	X	X	X	X	
8									X	X	X	X	
9										X	X	A	
10											X	A	
11												X	
12													X

Description:

- 1) Overlapping authority between vertical and horizontal department
- 2) Limited funding
- 3) Poor data collection and reporting systems
- 4) Low quality of human resources
- 5) Poor application of penalty and rewards
- 6) Low involvement of institutions outside the government
- 7) Poor standard operating procedures for institutions
- 8) Absence of integrated management in tourism management
- 9) Low support for facilities and infrastructure
- 10) There is no agreed performance target in each institution
- 11) Incorrect work plans and programs
- 12) Weak evaluation and control activities

Based on Table 3, the majority of the sub-element matrix of institutional problems consists of a symbol (X), which means that these sub-elements affect each other (bidirectional), and also symbol (A), which means that the sub-elements in the column affect the sub-elements on the row. Then from the SSIM results, a reachability matrix was compiled, which can be seen in Table 4. After identifying the reachability matrix, each of these sub-elements of the institutional problem is then arranged in a matrix of power and dependent drivers (Fig. 4).

Table 4. Reachability matrix

	1	2	3	4	5	6	7	8	9	10	11	12	DP	RANK	
1	1	1	1	1	1	1	1	1	1	0	1	1	11	2	
2	1	1	1	1	0	1	1	1	1	1	0	1	1	19	3
3	1	1	1	1	0	1	1	1	1	1	0	0	9	4	
4	1	1	1	1	1	1	1	1	1	1	1	1	12	1	
5	1	1	1	1	1	1	1	0	0	0	0	1	8	5	
6	1	1	1	1	0	1	1	1	1	1	1	1	11	2	
7	1	1	1	1	1	1	1	1	1	1	1	1	12	1	
8	1	1	1	1	1	1	1	1	1	1	1	1	12	1	
9	1	1	0	1	1	1	1	1	1	0	1	1	9	4	
10	1	1	1	1	1	1	1	1	1	1	1	0	11	2	
11	1	1	1	1	1	1	1	1	1	1	1	0	11	2	
12	1	1	1	0	0	1	1	1	1	1	1	0	10	3	
DEPT	12	12	11	10	9	12	12	11	11	8	10	8			
RANK	1	1	2	3	4	1	1	2	2	5	3	5			

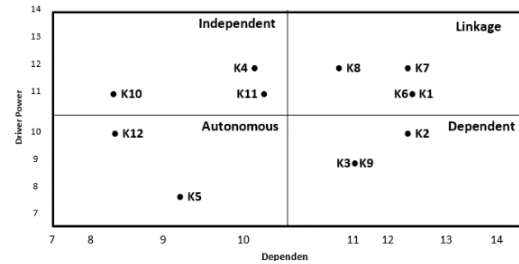


Figure 4. Matrix of Driver Power-Dependent (Elements of Institutional Problem)

Description:

Autonomous sector (2 sub-elements)

- 1) poor application of penalty and rewards (K5)
- 2) weak evaluation and control activities (K12)

Dependent sector (3 sub-elements)

- 3) limited funding (K2)
- 4) Poor data collection and reporting systems (K3)
- 5) Low support for facilities and infrastructure (K9)

Linkage sector (4 sub-elements)

- 1) Overlapping authority between vertical and horizontal department (K1)
- 2) Low involvement of institutions outside the government (K6)
- 3) Poor standard operating procedures for institutions (K7)
- 4) The absence of integrated management in tourism management (K8)

Independent sector (3 sub-elements)

- 1) Low quality of human resources (K4)
- 2) There is no agreed performance target in each institution (K10)
- 3) The preparation of programs and work plans that are not right on target (K11)

The three sub-elements in the dependent sector have inadequate carrying capacity with a high dependence level, so they are not prioritized in resolving institutional constraints in the Pulau Merah Beach tourism area. The four sub-elements of the linkage sector have high carrying

capacity and dependence so that the problem cannot be solved independently but requires cooperation with other institutions.

The sub-elements included in the independent sector's problems must efficiently handle because they have a dominant influence on the system and have a large driving force. A previous study [31] explained that a country's tourism industry could optimally run because it gets support from the human aspects around it. So, if the human resource aspect can be developed and improved, tourism development can occur optimally [32]. This power-dependent driver matrix results can be compiled into an ISM model with a hierarchical structure of the institution problem sub-elements in the Pulau Merah Beach, as shown in Figure 5.

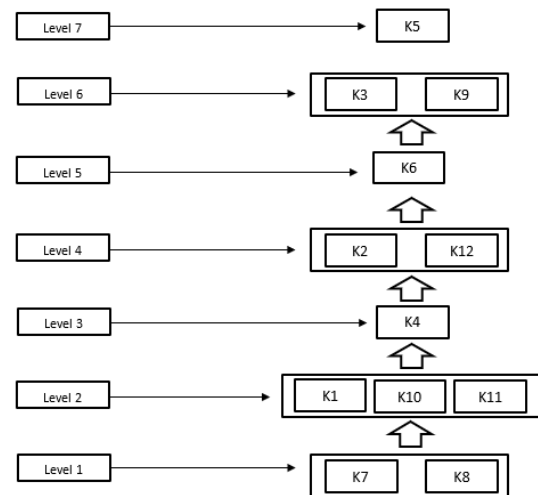


Figure 5. Hierarchy structure of institutions problem

Description:

Level 1

- K7 = poor standard operating procedures for institutions
- K8 = the absence of integrated management in tourism Management

Level 2

- K1 = overlapping authority between vertical and horizontal department
- K10 = there is no agreed performance target in each institution
- K11 = the preparation of programs and work plans that are not right on target

Level 3

- K4 = low quality of human resources

Level 4

- K2 = limited funding
- K12 = weak evaluation and control activities

Level 5

- K6 = low involvement of institutions outside the Government

Level 6

- K3 = poor data collection and reporting systems
- K9 = low support for facilities and infrastructure

Level 7

- K5 = poor application of penalty and rewards

Figure 5 shows seven elements of an institutional problem, where sub-elements of poor standard operating procedures for institutions (K7) and the absence of integrated management in tourism management (K8) are vital points that must resolve first. If these two problems are resolved, it will be able to encourage the resolution of the institutional problem at the second level, such as overlapping authority between vertical and horizontal department (K1), there is no agreed performance target in each institution (K10), and the preparation of programs and work plans that are not right on target (K 11). When cooperation between institutions has been established, overlapping authority does not occur again. Furthermore, improvements of performance at the second level, especially improvements in program formulation and work plans, will also improve the third level, namely the constraints on the low quality of human resources (K4) and further support at the fourth level, namely constraints of limited funding (K2) and low evaluation activities, and control (K12).

If these two problems can be handled, the next stage will be able to solve the fifth stage problems, namely the low level of involvement of non-government institutions, such as ASITA, PHRI, NGOs, and so on (K6) of tourism management in Pulau Merah Beach area can be resolved. At the sixth level, it consists of the poor data collection and reporting system in the tourism sector (K3) and the lack of support for institutional facilities and infrastructure in tourism management in the Pulau Merah Beach Area (K9). In the final stage, if the two problems have been overcome, then the sixth level will be able to encourage the seventh level, namely the poor of penalty and rewards in the field of tourism management in the Pulau Merah Beach Area (K5).

Standard Operating Procedure (SOP) is a guide to be able to maximize the role and quality of the institution without giving excessive negative effects [24]. After the SOP is implemented optimally, each institution must be able to integrate with tourism planning and management. The integration of institutions in carrying out tourism management must be carried out as a step to increase regional income and resolve problems that may be faced because each institution has different and complementary roles and functions [34]. So that sustainable management of the Pulau Merah Beach area can be achieved.

Element of Institutional Expected Goals in the management of Pulau Merah Beach Tourism

There are 11 sub-elements in the institution's expected goals in the management of Pulau Merah Beach tourism. The first step in ISM analysis is to arrange a structure self-interaction matrix (SSIM) from sub element in elements of institutional expected goals and are compared, then marked with four symbols (V, A, X, O), which can be seen in Table 5.

Table 5. Elements of institutional expected goals Structure self-Interaction Matrix

	1	2	3	4	5	6	7	8	9	10	11
1											
2	A										
3		V									
4			X								
5				X							
6					V						
7						A					
8							X				
9								A			
10									X		
11										X	

Description:

- 1) Achieve integrated and sustainable tourism management
- 2) Increased participation of the public and entrepreneurs in tourism activities
- 3) Comprehensive or holistic and sustainable tourism program planning
- 4) Resolving problems can be carried out more quickly and accurately
- 5) Increasing services to the community
- 6) Effective and efficient tourism management on Pulau Merah Beach is implemented
- 7) The realization of research and development activities for Pulau Merah Beach tourism
- 8) The implementation of law enforcement in a firm and clear
- 9) Coordinating data collection and reporting as additional policy material
- 10) Coordinated implementation of monitoring, evaluation, and control of the management of Pulau Merah Beach tourism
- 11) The realization of an integrated regulation by combining various existing regulations

Based on Table 5, the majority of the sub-element matrix of institutional problems consists of a symbol (X) means that these sub-elements influence each other, and also symbol (A) means that the sub-elements in the column affect the sub-elements on the row. Then from the SSIM results, a reachability matrix was compiled (Table 6). After identifying the reachability matrix, each of these sub-elements of institution expected goals is then arranged in a matrix of power and dependent drivers (Fig. 6).

Table 6. Reachability matrix

	1	2	3	4	5	6	7	8	9	10	11	DP	RANK
1	1	0	0	1	1	1	1	1	1	1	1	1	9
2	1	1	1	1	1	1	0	1	1	1	0	9	3
3	1	0	1	1	1	1	1	1	1	1	1	10	2
4	1	1	1	1	1	1	1	1	1	0	0	8	4
5	1	1	1	1	1	1	0	1	0	0	0	7	5
6	1	0	0	1	0	1	0	1	1	1	1	7	5
7	1	1	1	1	1	1	1	1	1	1	1	11	1
8	1	1	1	0	1	1	1	1	0	0	1	8	4
9	1	1	1	1	1	1	1	1	1	1	1	11	1
10	1	1	1	1	1	1	1	1	1	1	1	11	1
11	1	0	1	1	1	1	1	1	1	1	1	10	2
DEPT	11	7	9	10	10	11	7	11	9	8	8		
RANK	1	5	3	2	2	1	5	1	3	4	4		

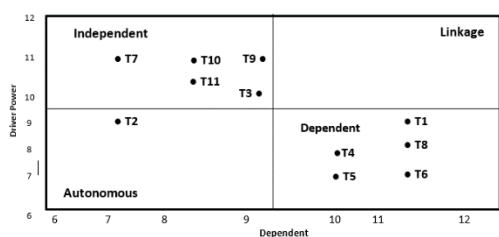


Figure 6. Matrix of Driver Power-Dependent (Elements of Institutional Expected Goal)

Description:

Autonomous sector (1 sub-element)

1) The objective elements of increasing community and entrepreneur participation in tourism activities (T2).

Dependent sector (5 sub-elements)

- 1) Achieve integrated and sustainable tourism management (T1)
- 2) Solving obstacles and problems can be carried out more quickly and accurately (T4)
- 3) Increasing services to the community (T5)
- 4) The implementation of efficient and effective tourism management in the Pulau Merah Beach Area(T6)
- 5) The implementation of law enforcement in a firm and clear order (T8)

Independent sector (5 sub-elements)

- 1) the arrange of a comprehensive and sustainable tourism program planning (T3)
- 2) The realization of tourism research and development activities in the Pulau Merah Beach (T7)
- 3) coordinated data collection and reporting as material for other policies (T9)
- 4) Coordinated implementation of monitoring, evaluation, and control of tourism management in the Pulau Merah Beach Area (T10)
- 5) The realization of an integrated regulation by integrating various existing regulations (T11).

Based on Figure 6 above, the analysis result does not show that there are sub-elements included in the linkage sector. This power-dependent driver matrix results can compile into an ISM model with a hierarchical structure of the institution purpose sub-elements in the Pulau Merah Beach (Fig. 7). In the expected goal elements, there are six hierarchical levels. The first level consists of T1, T6, and T8. These three goals will encourage the goal of the problems (T4) to be implemented quickly and precisely at the second level.

Furthermore, the second level will encourage the third level. Then it will encourage the fourth level, T2 and T10. These two goals will encourage T9 and T7. The coordination between elements in the tourism system greatly affected tourists' behavior patterns and requests related to tourism services, This coordination can realize research and development activities in tourist areas [35]. So that success in realizing the key factors can push the goals at the next level optimally and efficiently.

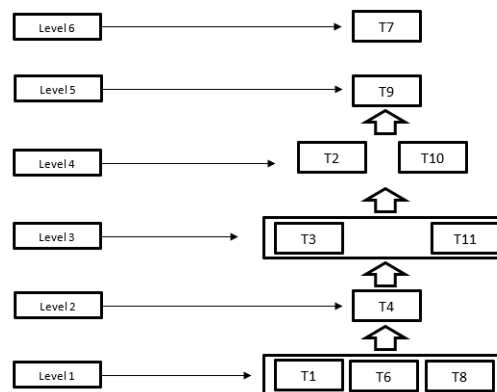


Figure 7. Hierarchy structure of Institutional Expected Goal

Description:

Level 1

- T1 = the realization of integrated and sustainable Pulau Merah Beach tourism management
- T6 = implementing efficient and effective tourism management in the Pulau Merah Beach Area
- T8 = implementation of firm law enforcement

Level 2

- T4 = Solving obstacles and problems can be carried out more quickly and accurately

Level 3

- T3 = the compilation of comprehensive and sustainable tourism program planning
- T5 = improved service to the community
- T11 = the realization of a comprehensive regulation that combines various existing regulations

Level 4

- T2 = increasing community and entrepreneur participation in tourism activities
- T10 = coordinated implementation of monitoring, evaluation, and control of tourism management in the Pulau Merah Beach Area

Level 5

- T9 = coordinated data collection and reporting as additional policy materials

Level 6

- T7 = encourage the next level, such as realizing tourism research and development activities in the Pulau Merah Beach Area

Elements of expected programs in the management of Pulau Merah Beach Tourism

Based on expert research, there are 11 sub-elements of programs that are expected in the management of tourism in the Pulau Merah Beach Area. The first step in ISM analysis is to arrange a structure self-interaction matrix (SSIM) from sub element in elements of institutional expected programs and are compared, then marked with four symbols (V, A, X, O), which can be seen in Table 7.

Based on Table 7, the majority of the sub-element matrix of institutional problems consists of the symbol (X) which means that these sub-elements influence each other. Then from the SSIM results, a reachability matrix was compiled

which can be seen in Table 8. After identifying the reachability matrix, each of these sub-elements of the expected program is then arranged in a power matrix and dependent drivers (Fig. 8).

Table 7. Elements of institutional expected programs Structure self-Interaction Matrix

	1	2	3	4	5	6	7	8	9	10	11
1	X										
2		X									
3			X								
4				X							
5					X						
6						X					
7							X				
8								X			
9									X		
10										X	
11											X

Description:

- 1) Increasing the quality of human resources in tourism management institutions
- 2) Improvement of tourism management facilities and infrastructure
- 3) Establishing a particular institution that handles the management that integrated the Pulau Merah Beach tourism area
- 4) Formulating an integrated tourism management planning pattern in the Pulau Merah Beach tourism area
- 5) Inventory or data collection of potentials of the Pulau Merah Beach area
- 6) Cross-sectoral funding institutions
- 7) Evaluation of policies or regulations enforced in the Pulau Merah Beach Area
- 8) Synchronization, vision, mission, programs, and targets
- 9) Increasing the participation of local communities and institutions in tourism management
- 10) developing monitoring and evaluation functions
- 11) Compiling and integrating various regulations and technical guidelines for tourism management in the Pulau Merah Beach Area

Table 8. Reachability matrix

	1	2	3	4	5	6	7	8	9	10	11	DP	RANK
1	1	1	1	1	1	1	1	1	1	1	1	11	1
2	1	1	1	1	1	1	1	1	1	1	1	11	1
3	0	0	1	0	1	1	1	1	1	1	1	8	3
4	0	0	1	1	1	1	1	1	1	1	1	9	4
5	1	1	1	1	1	1	1	1	0	1	1	10	2
6	1	1	1	1	1	1	1	1	1	1	1	11	1
7	1	0	1	1	1	1	1	1	1	1	1	10	2
8	1	1	1	1	1	1	1	1	1	0	1	10	2
9	1	1	1	1	1	1	1	1	1	1	1	11	1
10	1	1	1	1	0	1	1	1	1	1	1	10	2
11	1	1	1	1	1	1	1	1	0	0	1	9	4
DEPT	9	8	11	10	10	11	11	11	9	9	11		
RANK	3	4	1	2	2	1	1	1	3	3	1		

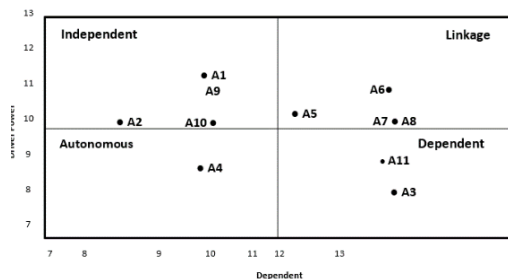


Figure 8. Matrix of Driver Power-Dependent (Elements of expected programs)

Description:

Autonomous sector

- 1) Programs to compile an integrated tourism management planning pattern in the Pulau Merah Beach Area (A4)

Independent sector (2 sub-elements)

- 1) Forming a particular institution that handles the integrated management of the Pulau Merah Beach Area (A3)
- 2) Compiling and integrating various regulations and operational guidelines / technical guidelines for tourism management in the Pulau Merah Beach Area (A11).

Linkage sector (4 sub-elements)

- 1) Inventory/data collection on all conditions and potentials of the Pulau Merah Beach Area (A5)
- 2) Cross-sectoral funding cooperation (A6)
- 3) Evaluation of policies/regulations enforced in the Pulau Merah Beach Area (A7)
- 4) Synchronization of vision, mission, programs, and targets (A8)

Independent sector (5 sub-elements)

- 1) Improving the quality of human resources in tourism management institutions (A1)
- 2) Improving tourism management facilities and infrastructure (A2)
- 3) Increasing the participation of local communities and institutions in tourism management (A9)
- 4) Development of monitoring and evaluation functions (A10).

Based on the picture above, an element is included in the autonomous sector, i.e. A4. The independent sector consists of two sub-elements, A3 and A11. The linkage sector consists of four sub-elements of expected programs, A5, A6, A7, and A8. Finally, which is included in the independent sector, four programs are expected, A1, A2, A9, and A10. The results of this power-dependent driver matrix can be compiled into an ISM model with a hierarchical structure of the expected program sub-elements in Pulau Merah Beach (Fig. 9).

There are six levels in the expected tourism management program in the Pulau Merah Beach Area. On the first level, there are several sub-elements, i.e. A3, A7, and A11. These three programs will encourage A8, which are at the second level.

Furthermore, the second level will encourage activities A4 at the third level. The third level will then encourage the fourth level, A6 and A9. These two programs will improve A1, which are at the fifth level. Finally, at the fifth level programs will encourage three programs at the sixth level, i.e. A2, A5, and A10.

Effective tourism management can support the jobs and business opportunities for the community to play a significant role in the local and regional development process [36]. Each level that is in the structural hierarchy is an illustration that the tourism system is interrelated, so it requires a multisector and multidisciplinary approach. Mainly, it requires

synergy between the government, the private sector, and the community [37]. The goal is to prevent overlapping policies and minimize losses received by either party.

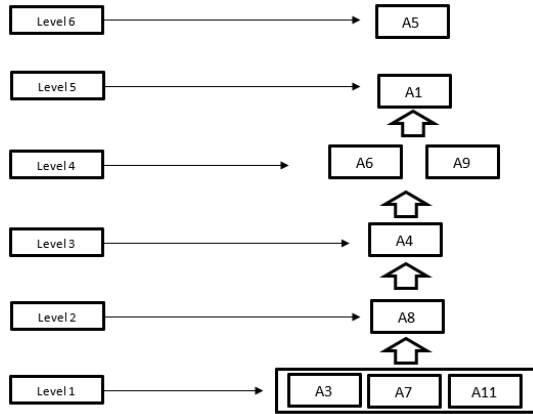


Figure 9. Hierarchy structure of expected programs

Description:

Level 1

- A3 = Form a particular institution to handle integrated management of Pulau Merah Beach Area
- A7 = Evaluation of Pulau Merah Beach Area regulations
- A11 = Compile and integrate various regulations and technical guidelines for tourism management in the Pulau Merah Beach Area

Level 2

- A8 = synchronization of the vision, mission, programs, and targets

Level 3

- A4 = formulate an integrated tourism management planning pattern in the Pulau Merah Beach Area

Level 4

- A6 = cross-sectoral/ institutional funding cooperation programs
- A9 = programs to increase the participation of local communities and institutions in tourism management

Level 5

- A1 = improve human resources quality in tourism management institutions

Level 6

- A2 = improving tourism management facilities and infrastructure
- A5 = collecting conditions and potentials in Pulau Merah Beach
- A10 = monitoring and evaluation development functions

CONCLUSION

DISBUDPAR in institutional elements has a role as an essential factor and leading sector in tourism management following Local Regulations Number 24 the Year 2004. DISBUDPAR must create a grand design for tourism management in the Pulau Merah Beach Area by considering input from other institutions and stakeholders so that the results will be more comprehensive and have a positive impact on all sides. Each goal has high dependability and low thrust capacity from the several elements of the expected goals. So, to

achieve the expected goal, the objectives in the independent sector must be realized optimally. In the problem element, a more detailed SOP (Standard Operating Procedure) is needed so that each institution's performance can be more efficient and optimal. The programs that have been planned can be the key to achieving the expected goals and solving problems that exist in tourism management. One of them is the design for establishing institutions that can encourage the implementation of a sustainable tourism management program.

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Destination Image Dimension: A Descriptive Analysis of Foreign Visitors At Borobudur, Indonesia

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Abstract

This study aims to determine the dominant factors forming the image in the context of tourism destinations. The quantitative method with the survey format chosen in this study, where the data obtained through convenience sampling were analyzed using Principal Component Analysis (PCA). The results showed that the image of Borobudur as a destination was formed by 4 dominant factors, namely: Core Attractions, Supporting Attractions, Services, and Experience. The results of this study have implications for destination marketers to get a clear picture of how the image is in the eyes of tourists so that programs or activities for developing and improving the quality of a destination are more focused and right on target. This paper fills a gap in the generic branding literature by adopting an empirical stance in describing image-forming factors in the context of tourism destinations.

Keywords: Brand image, destination branding, destination image, tourism destinations.

INTRODUCTION

From several studies show that the image has become one of the most important determinants on the decision to visit tourist destinations. Visitors' decision-making is one of the consumers behavior dimensions that are in the consumers' insight area. Numerous studies have pointed out the influence of tourism images on consumer behavior [1-7]. In fact, destination image plays an important role in tourist behaviour during the various moments which make up a tourist's experience: in the decision-making process of choosing a destination (*a priori*); in the process of comparing expectations with experience, which precedes the state of satisfaction and perceived quality (*in loco*); and in the process of revisiting, spreading word of mouth and recommending the destination to friends and family (*a posteriori*) [8].

The concept of destination image has been used in tourism research since the early 1960s, and the influence of tourism images on the choice of destination has been considered by many researchers when they develop decision models [4,9-12]. There is a broad agreement that the destinations with stronger positive images will have a higher probability of being selected by tourists when they make their decisions [13,14].

The above description shows that the image of a destination will determine the tourists to be interested in coming and visiting the destination. It can be understood because the image of the destination is the impression

of tourists in general to a tourist destination, acts, and influences in buying behavior and satisfaction, and understand the behavior of tourists in travel with the characteristics and patterns of tourism [15-18].

In the context of competitiveness, the destination image is one of the key sources of competitive advantage. When planning destination development, an emphasis must be placed on the formation of a positive image of the destination in the markets it targets to achieve a competitive edge over competing destination. The image of a tourism destination responds to the needs of tourists seeking a choice within diversified tourist supply, but with a humane component that includes elements of the tourism destination's uniqueness. There is a great need to develop a distinctive destination image as it is the foundation of the destination's positioning, providing it with particularities and differentiating it from competitors [19].

From some of the above, it can be concluded that the image of the destination has a very vital role in the management of tourism destinations at this time. But, from some research results about the concept of the destination image, it is seen that the factors forming the destination image are still not steady and from many studies on the factors that form the destination image has different results. For that, this research would like to find the factors of the destination image again, to contribute to the concept of the destination image for steadier.

This research conducted in Borobudur, Central Java, Indonesia. According to CNN Indonesia in 2017, as a cultural heritage temple listed in UNESCO, Borobudur still cannot compete with similar temples in other countries

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[20]. The number of tourists visiting the Borobudur Temple is considered still slight compared with similar destinations in other countries. If the average tourist arrivals to Borobudur temple as much as 250,000 people per year compared with the number of tourists visiting the Angkor Wat, which is 2.5 million people per year, of course the number of tourist visits to Borobudur is still very far below expectations. Though in terms of architecture, Borobudur Temple is also not less beautiful than the Buddhist temples abroad, such as Angkor Wat in Cambodia. Other than that, Borobudur temple is the biggest Buddhist temple on earth, which was built by King Smaratungga between 760 until 830 A.D [21].

This research is a conceptual work to evaluate the latest empirically about the image of tourist destinations. This research is a confirmation of the existence of Borobudur tourism attraction by involving the participation of tourists, who in this case are tourists from Europe. This research is expected to produce meaningful information for Borobudur tourism sustainability. In this context, what is important to be studied is the attractiveness of Borobudur and the motivation of tourists from Europe traveling to Borobudur.

Brand image is an important concept in consumer behavior [22-24]. Research during the past three decades has demonstrated that the image of a place is a valuable concept in understanding the destination selection process of tourists. Many studies have focused on the relationship between destination image and consumer behavior [4-6,25-27].

Brand Image

Brand image is a set of consumer beliefs about a particular brand, which is reflected by the consumer, by holding on to the memory to form a certain picture of a trace of meaning left in the minds of consumers [28-31]. Brand image is a representation of the overall perception of the brand and is shaped by the information and knowledge of the brand. The image of the brand relates to an attitude in the form of beliefs and preferences to a brand, where consumers who have a positive image of a brand will be more likely to make a purchase [32].

Brand image is a multidimensional construct [33] and consists of functional and symbolic brand benefits [34]. Similar to the strong interest in studying brand image for the past three decades, destination image has been a dominating area of tourism research [35].

Destination Image

The brand image of a destination is called destination image. There is broad agreement that destination image represents a consumer's overall perception or impression of a destination after they experienced it [4,36,37] or the psychological representation of a place [4,13]. Therefore, it is reasonable to assume that an image will have an impact on consumers' behavior when they shop for a tourist destination [4,36,38]. In the tourism industry, many researchers have investigated the importance of understanding forces that influence image development [4,5,39,40].

Some researchers have studied destination image by using three dimensions, namely cognitive, affective and conative such as previous studies [8,41-50]. They have proven that the relationship between cognitive, affective, and conative processes plays a crucial role in the building destination image.

The cognitive component of the image describes the beliefs and information that people have about a place, generally coming as a result of the evaluation of the people living in that place and the events taking place in that place. Cognition is the sum of what is known about a destination, which may be organic or induced [27,42,51]. In other words, this is awareness, knowledge or beliefs, which may or may not have been derived from a previous visit. After all, destination images can only exist if there is at least a small amount of knowledge [42,52].

The affective component refers to the evaluation stage concerning the feelings that the individual associates with the place of the visit [8,43,44,53-55]. The affective or element describes what people feel about a place, like or dislike of a place [23,55-57].

The conative component comprises action, i.e., the individual's actual conduct or intention to revisit and recommend the destination to others [8,42,45-47,54,58]. The conative image is analogous to behavior since it is the intent or action component. Intent refers to the likelihood of brand purchase [42].

The majority of studies confine to assess the cognitive dimensions of destination image [35]. Some notable exceptions exist that combine both cognitive and affective components. In terms of method, researchers have a strong preference for structured research designs. Five to seven points semantic differential and Likert-type scales are most common among researchers [59-61]. As

for the number of destination image attributes, it diverges largely from 4 [53] to 48 [62].

To date, most studies dealing with the assessment of destination image were predominantly concerned with the measurement of cognitive aspects, which are usually related to certain attributes a destination has. It has resulted in the negligence of affective and conative image components, which are more difficult to detect. Although it is assumed that they play an even more crucial role in destination image formation [50] as the affective domain represents emotions of either positive, negative, or neutral nature towards a destination. Hence indicates the likelihood of choosing a certain destination over another [63], and the conative domain represents the intention to return and loyalty. The latter is even more important in a competitive environment such as events [64].

To measure the destination image, Coban provides a clearer direction and can be seen from six aspects: (1) Tourist attractions, assessing nightlife and entertainment, restaurant quality, varieties of shopping opportunities, and local food; (2) basic facilities, assessing security and safety, community hospitality, service standards, and local tour and recreation; (3) cultural attractions, assessing landscapes, cultural attractions, and cultural heritage; (4) touristy substructures and access possibilities, assessing tourism information, accessibility, and foreign language abilities; and (5) natural environments, assessing polluted environments, weather, and climate; and (6) variety and economic factors compose, assessing tourist spending, activity varieties, and accommodation quality [56]. Some research results indicate that the perception of tourists is influenced by factors such as historical and cultural attractions, affordability of destinations, travel environment, natural attractions, entertainment and infrastructure. The results of this study imply that building a destination image must be balanced by factors such as infrastructure and facilities, cultural attractions, natural attractions, destination safety and hygiene, friendly locals and a quiet atmosphere, service and affordability.

MATERIAL AND METHOD

This research uses a quantitative method with a deductive approach. Principal Component Analysis (PCA) is used to find the factors that can shape the image of the destination with the cognitive, affective, and conative approach method.

Data Collection

Data were collected in Borobudur, Indonesia, for around two weeks. To participate in the survey, respondents were approached with convenience sampling. That sampling method was taken because it was more suitable to the situation faced by the researcher, in which the population characteristics are not known with certainty or infinite. The distribution of questionnaires with this technique produced 150 samples. In general, respondents were responsive and willing to participate, and refusal rates were predominantly low ($\pm 5\%$).

In this research, validity testing was performed using the Statistical Package Social Science program (SPSS-IBM, 24). From the 17 items of the manifest variable, two invalid items are item number one and number four. Both of these items are still used in this research by fixing the item statement. For reliability testing, this study using Alpha Cronbach with a result of 0.7, which means the questionnaire used is quite reliable.

Profile of Respondents

Based on country of origin, the majority of respondents came from Germany, Netherlands, France, Britain, and other European countries.

Table 1. Profile of respondents

Profile	Characteristic	F	%	Cumulative (%)
Country	Austria	13	8.7	8.7
	France	16	10.7	19.3
	Germany	37	24.7	44
	Mexico	3	2	46
	Netherland	18	12	58
	Canada	5	3.3	61.3
	Spain	9	6	67.3
	England	11	7.3	74.7
	Portugal	2	1.3	76
	Egypt	3	2	78
	India	2	1.3	79.3
	Japan	2	1.3	80.7
	Poland	2	1.3	82
	Tunisia	2	1.3	83.3
Asean	3	2	85.3	
Others	22	14.7	100	
Age	18 or younger	25	16.7	16.7
	19-20 years	19	12.7	29.3
	25-44 years	76	50.7	80
	45-64 years	23	15.3	95.3
	> 64 years	7	4.7	100
Gender	Male	86	57.3	57.3
	Female	64	42.7	100
Occupation	Civil servant	14	9.3	9.3
	Entrepreneur	20	13.3	22.7
	Professional	22	14.7	37.3
	Student	58	38.7	76
	Others	36	24	100

In terms of age, most respondents were between 25-44 years old (50.7%) and under 18 years (16.7%). Cumulatively 80% are under 45 years of age. Approximately 57.3% of respondents were male, with majority of students (38.7%) and professional (14.7%), and Entrepreneur (13.3%).

Data Analysis Technique

The main data analysis technique used in this study was factor analysis to look for interdependence relationships between variables to identify the dimensions or factors that create them. The calculation of factor analysis was done with SPSS-IBM 24 software with following steps [65]:

1. Determine the manifest variables that are considered feasible to enter the factor analysis stage; testing using Bartlett test of sphericity method and measurement of MSA (Measure of Sampling Adequacy).
2. Factoring; core process of extracting one or more factors from the variables that have passed in the previous variable test.
3. Interpretation of the factors formed, specifically, naming the factors that have been formed and considered to represent the variables of the factors members.
4. Validation of factor results to ensure that the factors formed are valid by dividing the sample into two parts, then comparing the sample factor one with sample two.
5. Testing the causal modeling of image forming variables, which was done by using multiple linear regression. It is used to know the direction of the relationship between the independent variables, in this case, the image generation factor (Core Attraction, Supporting Attraction, Services, and Experiences) in affecting the image as the dependent variable, whether each independent variable is positive or negative. It is also to predict the value of the variable dependent if the value of the independent variable increases or decreases. Hypothesis testing together Core Attraction, Supporting Attraction, Services, and Experiences on the image as a dependent variable is done by using the F test. While testing each image forming factor to image as dependent variable is done with t-test.

RESULT AND DISCUSSION

The response of foreign tourists to the image of Borobudur consisting of six dimensions: tourist attractions, basic facilities, cultural attractions,

sub-structures of tourists and access, variability and economic factors, and emotional factors, as measured by 17 manifest variables (Table 2). Of the 17 items used to measure the image of Borobudur, it appears that the overall image of Borobudur is considered positive in the eyes of foreign tourists. An overview of the perception of foreign tourists to Borobudur can be seen from the results of the descriptive statistics (Table 3).

Table 2. Foreign tourist perception of borobudur

No	Item	Option	F (%)	Cumulative (%)
1	Borobudur provides many varieties for shopping.	Strongly Disagree	2	2
		Disagree	7.3	9.3
		Neutral	40.7	50
		Agree	32	82
		Strongly Agree	18	100
2	Local culinary products are available and vary.	Strongly Disagree	2	2
		Disagree	6	8
		Neutral	38.7	46.7
		Agree	34.7	81.3
		Strongly Agree	18.7	100
3	Borobudur provides adequate attention to the security and safety of visitors.	Strongly Disagree	0.7	0.7
		Disagree	1.3	2
		Neutral	19.3	21.3
		Agree	43.3	64.7
		Strongly Agree	35.3	100
4	The people around Borobudur are friendly to visitors.	Strongly Disagree	0.7	0.7
		Disagree	1.3	2
		Neutral	12.7	14.7
		Agree	46	60.7
		Strongly Agree	39.3	100
5	The quality of service provided to visitors is optimal.	Disagree	6	6
		Neutral	24.7	30.7
		Agree	52	82.7
		Strongly Agree	17.3	100
6	Local tours and recreation are great fun.	Strongly Disagree	3.3	3.3
		Disagree	6	9.3
		Neutral	36	45.3
		Agree	34	79.3
		Strongly Agree	20.7	100
7	The scenery of Borobudur and its surroundings is amazingly beautiful.	Disagree	1.3	1.3
		Neutral	10.7	12
		Agree	30	42
		Strongly Agree	58	100
8	Borobudur is rich in cultural attractions.	Disagree	2	2
		Neutral	12	14
		Agree	39.3	53.3
		Strongly Agree	46.7	100

No	Item	Option	F (%)	Cumulative (%)
9	Tourism information is available and quite helpful to visitors.	Strongly Disagree	2	2
		Disagree	12.7	14.7
		Neutral	24	38.7
		Agree	40	78.7
		Strongly Agree	21.3	100
10	Accessibility to Borobudur is good.	Strongly Disagree	0.7	0.7
		Disagree	5.3	6
		Neutral	25.3	31.3
		Agree	46	77.3
		Strongly Agree	22.7	100
11	The ability of local communities to speak foreign languages is adequate.	Strongly Disagree	2	2
		Disagree	8	10
		Neutral	26.7	36.7
		Agree	37.3	74
		Strongly Agree	26	100
12	Expenses for travel are very affordable.	Strongly Disagree	4	4
		Disagree	10	14
		Neutral	28	42
		Agree	37.3	79.3
		Strongly Agree	20.7	100
13	Borobudur provides various tour activities.	Disagree	8	8
		Neutral	47.3	55.3
		Agree	30.7	86
		Strongly Agree	14	100
		14	The quality of accommodation around Borobudur is good.	Strongly Disagree
Disagree	3.3			4
Neutral	32.7			36.7
Agree	38.7			75.3
Strongly Agree	24.7			100
15	Doing a tour in Borobudur gives a pleasant impression.	Strongly Disagree	1.3	1.3
		Disagree	1.3	2.7
		Neutral	16.7	19.3
		Agree	44.7	64
		Strongly Agree	36	100
16	Borobudur has a unique history.	Strongly Disagree	0.7	0.7
		Neutral	12	12.7
		Agree	36	48.7
		Strongly Agree	51.3	100
		17	Borobudur Temple is an enchanting historical building.	Strongly Disagree
Neutral	6.7			8
Agree	28.7			36.7
Strongly Agree	63.3			100

From Table 3, the average image score of 3.99 shows that the eyes of foreign tourists view the positive image of Borobudur, where the variation

of foreign tourist image to Borobudur is quite homogeneous, as seen from the variance coefficient of 12% (standard deviation ratio to average). The skewness price of statistics is 0.076 (greater than 0), which means the data distribution is leaning or extending to the right (the tail is right/positive), and the value of the statistical kurtosis is $0.587 < 3$, which means that the shape of the data distribution has the peak almost flat but not symmetrical (Fig. 1). The skewness of the visual image scores distribution shows that the slope of the data distribution ramps to the right (the tail is leaning right/positive) where the mean value is more than the median and mode (mean > median > mode). It means that the majority of foreign tourists tend to have a positive view of Borobudur as a destination.

Tables 3. Descriptive statistics of destination images

	Mean	Std. Deviation	Skewness	Kurtosis
Average Image Score	3.9333	.46476	.076	.587
Valid N (list wise)				

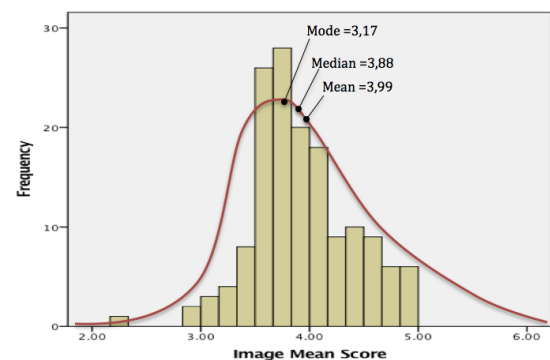


Figure 1. Image score skewness.

Borobudur image measurement according to the view of tourists was using 17 variables manifest (indicator). The determination of manifest variables that are considered feasible to enter the factor analysis phase is tested by the Bartlett test of sphericity and the measurement of MSA (Measure of Sampling Adequacy). The first test involving 17 result variables obtained shows that there are 5 variables whose MSA value below 0.5 so removed from the matrix and leaving 12 variables for further processing of factoring and validation of factors formed by dividing the sample into two parts (case 1: samples 1-75, case 2: 76-150), then compare the

results of case 1 and case 2 factors with the initial factoring. If the above three factors (the whole sample), the factors for case 1 (samples 1-75) and case 2 (samples 76-150), particularly on the matrix component, parts are compared, are seen that all still referring to the final result 4 (four) factors, although factor loading rates vary. In other words, the separation of cases into two parts does not change the number of factors generated, and certainly also the interpretation. It means that the initial factor is stable, and that factor can be generalized to the population [65], in this case, foreign tourists visiting Borobudur at the time of the research. Thus, this study yields four image-forming factors with the factor names are: Core Attraction, Supporting Attraction, Services, and Experiences (Table 4).

Tables 4. Borobudur image forming factors

Factors	Initial	Variable
1. Core Attraction	CORE	<ul style="list-style-type: none"> – The scenery of Borobudur and its surroundings is very beautiful. – Borobudur is rich in cultural attractions. – Borobudur provides a variety of tourist activities.
2. Supporting Attraction	SUPP	<ul style="list-style-type: none"> – Borobudur provides many variations for shopping. – Local culinary products are available and varied. – Borobudur gives adequate attention to the security and security of visitors.
3. Services	SERV	<ul style="list-style-type: none"> – People around Borobudur are friends with visitors. – Quality of service provided to visitors is optimal. – Accessibility to Borobudur is good.
4. Experiences	EXP	<ul style="list-style-type: none"> – Local tourism and recreation are very pleasant. – Borobudur has a unique history. – Borobudur Temple is an enchanting historical building.

By using SPSS, it can be concluded that the significance of F test <0,05 so that it can be concluded that the linear regression model is estimated to be used to explain the effect of image-forming factors (Core Attraction, Supporting Attraction, Services, and Experiences) as independent variables to the image as the dependent variable. The probability value of the t- test of free variables CORE, SUPP, SERV, and EXP of 0.000 is smaller than 0.05 so that all free variables (Core Attraction, Supporting Attraction,

Services, and Experiences) have a significant effect on image formation.

The Standardized Coefficients Beta column in Table 5 shows the magnitude of the direct effect coefficient of the Core Attraction Supporting Attraction, Services, Experiences to Image. The magnitude of the contribution of each factor in shaping the image is more clear Core attraction has the biggest influence on the image of Borobudur, which is equal to 29.38%. Supporting attraction and services give the second and third influence on Borobudur image, which is 26.11% and 22.37%. Meanwhile, the factor experiences has the lowest impact to the image of Borobudur that is equal to 21.81%.

Tables 5. Contribution factor against image formation

Variable	Factors	Contribution (%)
Image	Core Attraction	29.38
	Supporting Attraction	26.11
	Services	22.37
	Experiences	21.81

The causal relationship of Core Attraction Supporting Attraction, Services, Experiences to Image and gives an idea of how the causal relation of image formers is expressed in standardized regression coefficients (direct effect), where the core attraction factor is a form factor with the greatest contribution to the image, followed by supporting attraction, services and experiences (Fig. 2). Figure 2 also explains how the four factors consisting of core attraction, supporting attraction, services, and experiences are each formed by three manifest variables.

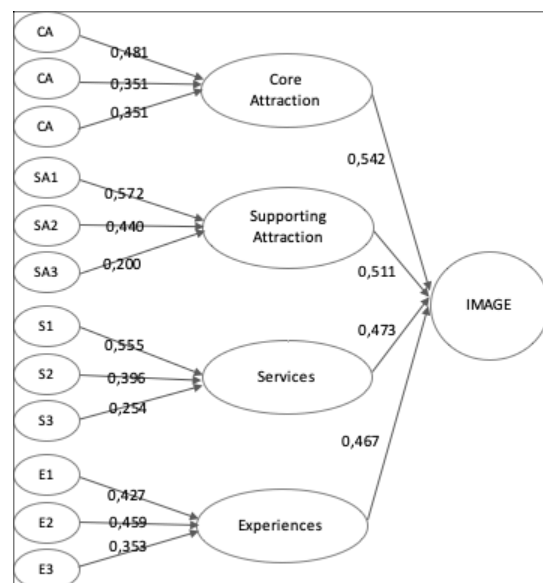


Figure 2. The causal relationship of the image

Tables 6. Manifest variable contribution to image forming factors

Factors	Manifest Variable	Contribution (%)
Core Attraction	• The scenery of Borobudur and its surroundings is amazingly beautiful.	23.14
	• Borobudur is rich in cultural attractions.	12.32
	• Borobudur provides various tour activities.	12.32
Support Attraction	• Borobudur provides many varieties for shopping.	32.72
	• Local culinary products are available and vary.	19.36
	• Borobudur provides adequate attention to the security and safety of visitors.	4.00
Services	• The people around Borobudur are friendly to visitors.	30.80
	• The quality of service provided to visitors is optimal.	15.68
	• Accessibility to Borobudur is good.	6.45
Experiences	• Local tours and recreation are great fun	18.23
	• Borobudur has a unique history	21.07
	• Borobudur Temple is an enchanting historical building	12.46

The result of research, which produces dominant factors of the image forming Borobudur, namely core attraction, supporting attraction, services and experiences, increasingly emphasized that the image of a destination will be good in the eyes of tourists when four components of image formers are packaged and well managed. A better image of a destination will make tourists visit the destination. The results of this study are in line with and strengthen the results of previous research conducted by Roostika in 2012 with the title of Tourism Destination Image and Tourist Behavior. The study showed that tourism as a form of service is identical with the image, so the brand image must be able to be developed in a positive direction [66].

Having a positive image of the expected tourists will build a positive perception and make decisions to visit. The results of this study support the Kalebos in 2016 research where the image of tourist destination affects the satisfaction of foreign tourists in Indonesia [67].

Destination image can affect tourist satisfaction and tourist loyalty. Tourist satisfaction with tourist destinations will bring in loyal tourists, who will come repeatedly. Therefore, objectively, a tourist spot must be able to become a destination that can serve various needs and supporting tourism facilities [68-70].

This research is also in line with Suradnya [71] about the perception of tourists visiting Borobudur tourist destination and its implications for market segmentation and strategy to position it. Suradnya identified eight factors that become attractions for tourists to choose Borobudur as a tourist destination. The

factors are: (1) Prices are reasonable for tourism products, (2) Culture with all forms of attraction, (3) beach with attractions offered, (4) leisure during travel, (5) Opportunity for relaxation, (6) image or reputation or big-name owned by Borobudur, (7) natural beauty, and (8) hospitality of the local people.

The previous brand image study involved many tangible product images, and still rarely studies that specifically examine the brand image of tourist destinations empirically. The theoretical implication of this research is the model of the influence of the brand image of the tourist destination on the replicated tourist behavior in Borobudur enriches the science of marketing and tourism. It also strengthens the theory that states the positive influence of the brand image of the tourist destination on the positive behavior of tourists in the geographical sphere of the developing country.

The practical implication, in this case, is that stakeholders in the tourism sector need to be more proactive in responding to the phenomenon of national and global tourism development. The marketing strategy must be well planned through structured research and involving tourism stakeholders. Indonesia (especially Borobudur), as an area that has a lot of tourism potential, needs to be properly managed to become a tourist destination with international standards. The government cannot act alone, and of course, other stakeholders, especially the community, must be involved in shaping the brand image of a tourist destination. It is because the image must be a reflection of the spirit of daily life and the culture of the local community. Furthermore, this condition is what distinguishes this area from other destinations.

CONCLUSION

From the 17 initial variables used as image formers, there are 12 variables and dominant factors that form the image of Borobudur, namely core attraction, supporting attraction, services, and experiences, where core attraction gives the greatest influence to the destination image. Meanwhile, the supporting attraction and services factors have the second and third largest impacts on the destination image, while the factor experiences give the lowest impact on the image of the destination.

This study has implications for Borobudur's management and other destination managers. First, the management must concentrate more on the forming factors of images, namely core attraction, supporting attraction, services, and experiences, because these four factors greatly influence the intention to visit Borobudur. Secondly, improvements need to be made by Borobudur managers to increase visits there. However, these improvements must be done by prioritizing the improvement of elements related to core attraction and supporting attraction as the priority and elements related to services and experiences as a second priority.

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Principles of Rural Tourism Development in Krisik Village, East Java: The Perspectives of Local Community

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Abstract

The research aimed to identify the local community perception in Krisik Village in Blitar Regency as a fundamental aspect of rural tourism planning and development. Three points were accepted as basic principles in rural tourism development, namely acceptance of rural tourism as an alternative to rural economic machine growth, promoting indigenous knowledge as a philosophy and value of rural tourism program implementation, and strengthening community-based tourism implementation in rural tourism programs Krisik Villages. Community involvement was a crucial issue in rural tourism planning and development. In the limitation of human resources, the assistance of the university to support and increase human resources capacity in rural tourism development was important.

Keywords: Community perception, ecotourism, tourism development, tourism planning.

INTRODUCTION

Rural tourism recently becomes an interesting strategy for rural development. Rural tourism has been considered a significant sector to support rural economic growth by developing tourism activity and product development related to tourism. Rural tourism should be able to support local community prosperity through numerous tourism activities opportunities that are able to provide economic benefits. Each village has its unique resources that may provide natural, social, and cultural features to support the identity of the villages. It is especially important for a rural area with a high potential value of natural and cultural resources [1,2].

Rural tourism development with ecological principles and promoting the local community as active actors in tourism business in villages have received much attention, especially among rural planners, developers, and conservationists. Many rural areas are rich in natural resources, which are essential to support rural dweller prosperity. Ironically, however, many communities in rural areas live under-chronic poverty with less health and educational support. Less creativity to manage agricultural products has been identified as a fundamental problem in the rural community. Scholars point out that poverty is the combination of illiteracy and educational facility [3]. Thus, serials training to improve community knowledge in optimizing natural and cultural

resources was crucial. In the absence of significant funding from the government agency, the voluntary works were initiated by the university, NGOs, and voluntary organizations were crucial [4,5,6].

Scholars point out that local community participation at the beginning of rural tourism planning is the key to success in developing a sustainable rural tourism destination. In this step, numerous interests and perceptions should be viewed and accommodated as a crucial input to drawing planning scenarios. Rural tourism used public resources on which many groups of village dwellers depend on the resources. Conflict often occurred as a result of overlapping usages without proper management. The involvement of the local community at the beginning of tourism potential exploration area related to the community acceptance in common resources usage for tourism activity, including water spring, river, cultural heritages, outstanding landscapes, and other resources [7-11].

Krisik Village in Blitar Regency rich in term of cultural and natural resources, in which it is crucial for future rural tourism development. The development of rural tourism in Krisik was necessary as part of the strategy to diversify rural economic activity [12]. In this study, local community and stakeholder perspectives were explored to construct the principles of rural tourism development in Krisik villages. It also aimed to provide a strategic recommendation to initiate sustainable rural tourism to support local community prosperity, environmental conservation, and cultural preservations.

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MATERIAL AND METHOD

Study area

Krisik Villages administratively belongs to Blitar Regency, East Java. Krisik Villages located at the provincial road corridors link to Malang-Batu to Blitar regency. Malang and Batu have been known as an important areas for tourism in East Java. Therefore, Krisik has a strategic geographical position from the perspective of tourism markets. The local community in the Krisik area was dominated by Javanese with traditional culture. According to statistical data, the number of the community increased significantly from 6149 in 2014 to 11,481 in 2018. The majority of the local dweller in Krisik were upland farmers [12].

Geographically, Krisik is located at highlands, surrounded by the ring of two volcanic ecosystems, the Mt. Kawi (2,551 m asl.) in the east and Mt. Kelud (1,731 m asl., last erupted February 14, 2014) in the west. The past volcanic activities of the mountains create fertile soil and abundant water resources in Krisik Villages. Thus, the two mountains ecosystem plays a vital role in the regional hydrological cycle. Located in the highland with relatively cool temperatures, the main activity was upland farming and livestock sectors, especially dairy cows. The community of Krisik was known as a multi-religious community, with Islam as the dominant religion. The existence of the Rambut Monte site presented the old history of Javanese ancient as one of the sacred areas in Krisik Village [12].

Methods

The field survey was conducted in Krisik Village in July 2020. Prior to the field survey, authors made contact and communication with rural village representatives to describe the objective of the study. First field visitation has been conducted to get survey permission and collect data and information related to village administrative data. In the first visitation, the author met the head of the village and staff for rural planning. The main agendas in the first meeting included an introduction and interviews to explore the village government's policy on rural development and the issues related to rural tourism. The authors collected relevant documents related to the village development planning document and examined the document's content and strategic issues. In order to get preliminary information related to the policy of village development policy, in-depth

interviews were implemented. Data and information were recorded for further analysis.

The second visitation was included a focus group discussion with the local community in Krisik villages. It included local group for tourism awareness (locally called *Kelompok Sadar Wisata*, POKDARWIS), youth association (Karang Taruna), farmer and cattleman association (Kelompok Tani dan Peternak Sapi), forest farmer association (Lembaga Masyarakat Desa Hutan, LMDH) and other groups which are related to tourism development. In the discussion forum, respondents were invited and asked to express their opinions regarding rural tourism, especially in Krisik. In addition, respondents were asked to describe the rural resources' potentials for tourism development and explain their potential role and contribution to the rural tourism program.

The thirds visitation includes a field survey of particular natural and cultural potential tourism objects in Krisik Village. An interested and potential tourism object was visited, and a description of objects was made. A survey of accessibility and policy related to accessibility to the rural tourism object was drawn. During the field survey, interviews with local people were implemented to get comprehensive information related to tourism objects, ownership status, and the possibility of local people being involved in tourism programs. Data were analyzed descriptively.

RESULT AND DISCUSSION

Villages Resources, Local Community, and Tourism Stakeholders

The natural landscapes of Krisik vary from agricultural uplands, protected forests, valleys, rivers, shrubs lands, and community settlements. Many participants felt that such resources were necessary for rural tourism attraction development. The document of rural development planning also argued that the abundance of natural resources was the fundamental resource for rural tourism in Krisik [12].

Focus group respondents argued that competition among rural tourism increased significantly, and tourism product and prices in rural tourism has become more competitive. This argument is relevant to the current situation where many natural recreation sites grow dramatically and offer numerous visitor spots, attractions, and other interesting programs—the

creativity and innovation in rural tourism development, therefore important [13].

In rural tourism development, Krisik has visited domestic tourists and numerous resources that were still less developed as tourism attractions (Table 1). Rambut Monte was the icon for recreation sites of the Blitar Regency. This site has been cited in many tourism brochures as one of the tourist sites interested in visiting. The Regency of Blitar implemented the recent management of Rambut Monte. Informant points out that there are few benefits of tourism in Rambut Monte to the local community. Through the field survey, the potential of village resources for tourism development included cattle farm, vegetable farm landscape, forest, river, local community coffee orchards, and private coffee plantation, and landscapes of rural settlement. With the increase of special interest tourism to visit the rural area, there are opportunities to involve such resources into rural tourism programs [14].

Mapping local communities and stakeholders in tourism is crucial, especially to minimize the potentiality of competition among rural

communities. In the absence of management, tourism will provide benefits and profits to particular local communities and stakeholders. From focus group discussion, some crucial findings related to the groups' opinions (Table 2).

The use and development of forests as recreation sites are guided by PERHUTANI. Basically, permission to open a specific area with an interesting natural tourism object was given to the forest farmer association (LMDH) through the specific agreements called *Perjanjian Kerja Sama* (PKS). Pokdarwis is especially important to tourism initiation, development, and promotions. Participants stressed the importance of Pokdarwis in several aspects, ranging from tourism introduction to the community, planning, and implementation. Focus group participants stated inadequate funding as one of the crucial obstacles to rural tourism development. Therefore, funding for rural tourism development is a crucial issue [15]. In the case of Krisik, an option to support funding included the opportunities to use the villages fund (Dana Desa) provided by the central government to support rural development.

Table 1. Villages resources for tourism development

Resources	Status	Remarks
Rambut Monte	Nature-based recreation sites	Water spring, forest and cultural heritages; Rambut Monte has been visited by domestic tourists, especially from Blitar and its surrounding area.
Cattle farm	Owned and managed by small households' family	Less promoted as tourism attractions.
Vegetables farm		
Forest	Managed by state owned enterprises (PERHUTANI)	The forest ecosystem is basically rich in natural tourism attractions.
Rivers	Public rivers	Rivers was used to support irrigation.
Rural settlement	Owned by rural dwellers	Some building has been renovated to a new building.
Coffee orchards	Cultivated by forest farmer in PERHUTANI forest	Coffee cultivated under industrial plant trees through the partnership scenario.

Table 2. Local community perception in rural tourism development in krisik Village, Blitar Regency.

Groups	Notes
Pokdarwis	✓ Rural tourism is a strategy of rural economic activity diversification.
	✓ The development of tourism is relevant to the recent trend of tourism development.
	✓ Pokdarwis was formed by the provincial government. Some member has participated in some tourism training.
KarangTaruna	✓ Tourism is a new culture in community lives, especially in Krisik.
	✓ Tourism should be able to support village development programs.
LMDH	✓ Assistance to support farmer knowledge and capability in collaboration with PERHUTANI was needed
Farmer and cattleman association	✓ Some technical assistance has been conducted to process dairy milk.
	✓ Opportunities to integrate agricultural product in farming.

Principles of rural tourism development

The focus group results suggest that the following three fundamental points are crucial for rural tourism development in Krisik. It has been agreed upon by the local community and stakeholders representative. The basic principles include three fundamental aspects for rural tourism planning, including (1) rural tourism accepted as a diversification strategy to increase community prosperity in Krisik, (2) rural tourism was developed based on local culture and indigenous knowledge of Krisik Villages, and (3) tourism development invites all component of community in Krisik villages to actively participate in rural tourism development. Issues related to the three points were drawn in Table 3.

Local value and spirit are fundamentally crucial to ensure the sustainability of the local community in the village area, including in Krisik. Many rural developments ideally facilitate and accommodate the local culture and indigenous knowledge of the community in rural tourism development [16].

Table 3. Keys point for rural tourism development in Krisik Village

Principles	Remarks
Rural tourism as diversification strategy	Improvement local agricultural products and integrate into tourism program
Local culture and indigenous knowledge	The community in Krisik has indigenous knowledge, which is unique and has opportunities to promote as key success for tourism in Krisik.
Community participation	Recently there are some organizations in Krisik. Coordination and communication among the organization are key for the success and sustainability of the tourism program in Krisik.

Challenges and Opportunities Towards Community-Based Tourism

Local community participation in drawing the principles of tourism development impacts tourism development positively by active community members in Krisik Village. Recently, issues related to community involvement in tourism have emerged as a crucial point in sustainable tourism. Community involvement in tourism has been accepted as a mechanism to provide direct benefits of tourism to local people. It has been reported that through community involvement, local people benefited from the tourism industry. The potential benefits from the

tourism industry have been reported numerous, ranging from direct and indirect economic benefits.

An in-depth interview showed some crucial points for community participation in rural tourism development in Krisik. It included (1) active participation in preliminary discussion to establish a vision, mission, and objective of rural tourism development, (2) active participation in potential resources survey and identification for tourism development, (3) active discussion in community mapping in tourism development scenarios, and (4) active participation in community development programs related to tourism product development. The villages' leader also supports community involvement in tourism development and support for local village enterprises (*Badan Usaha Milik Desa*, BUMDES) and small-medium enterprises (SMEs) development. Strengthening local community knowledge of the benefits of tourism to support local economic development, cultural preservation, and rural environmental conservation is crucial [17].

However, lack of skill and knowledge in organization and management to implement community-based tourism has been identified as a crucial factor for tourism success. Comprehensive planning and programs to enhance community skills and knowledge are therefore important. Support from the university has been implemented through the *Program Doktor Mengabdi 2020* of Universitas Brawijaya. Informants state that the programs have a positive impact on the initiation of rural tourism development planning. Straightening community program through numerous training to improve community knowledge and skill related to the natural and cultural resources management has been conducted, including (1) basic knowledge of rural tourism and community-based tourism, (2) tourism product development, (3) homestay management, (4) rural environment conservation, (5) basic knowledge and skill in café and coffee processing and (6) diversification of milk product to support culinary tourism in Krisik Village.

The support of stakeholders in tourism development is crucial, especially in local community development. The university's contribution is especially crucial to introduce technology to increase agricultural product processing and other aspects related to tourism product development [18].

CONCLUSION

The local community and stakeholders in tourism development in Krisik Villages are able to identify three fundamental aspects related to rural tourism development. Rural tourism as part of the strategy of agricultural diversification has been understood and accepted as the main principle. It means that tourism did not reduce the farming activity, which has become the community's basic culture in Krisik. The preservation of local culture and indigenous knowledge is vital in the development of rural tourism in Krisik. Third, strengthening community participation in rural tourism development has been identified as crucial. In cooperation with the local community and stakeholders, the village government will continue to implement sustainable rural tourism in Krisik. One of the most significant findings of the study is cooperation and networking between community members and stakeholders in rural tourism development are the crucial points for successful tourism development in Krisik village. This research documented the importance of the local community and tourism stakeholders in determining principles of rural tourism before the development in Krisik.

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Legal Protection of CBT Workers in Terms of Wages: A Case Study in Bedah Menoreh Pathway

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Abstract

One of the most vital industries with significant potential for development in Indonesia is the tourism industry. The current trend of the tourism industry development tends to lean towards Community-Based Tourism or CBT. Thus, the focus of this research is the legal protection of CBT workers, especially in terms of wages at *Bedah Menoreh* Pathway. This research aimed to collated and analyzed existing models of wages legal protection for CBT workers and compare them with Indonesian laws and regulations pertaining to *Bedah Menoreh* Tourism Supporting Path development. This research is empirical normative research. Analysis was conducted through systematizing and defining acquired data chronologically and on the basis of forms of legal protection as stated in laws and regulations. Based on the findings and analysis, several factors caused the absence of legal protection of CBT workers especially in term of wages. The researcher concludes that there must be a new pattern on wages regulation mechanism that will protect tourism workers relative to the condition of this unique CBT Attraction.

Keywords: Bedah Menoreh pathway, CBT worker, legal protection, wages.

INTRODUCTION

One of the most vital industries with significant potential for development in Indonesia is the tourism industry. The current trend of the tourism industry development tends to lean towards Community-Based Tourism or CBT. The development of tourism from the periphery, which is conducted by strengthening regions and villages, is the vision of the current government. One of the government's commitments was demonstrated by issuing Law number 6 of 2014 concerning villages which became a momentum for the revival of accelerated village development [1].

So far, development has been focused on cities. It causes rapid changes in rural areas such as migration flows to cities, the development of non-agricultural activities, labor scarcity and increases in agricultural wages, land conversion, land accumulation, and so on, which have positive and negative impacts on land tenure and relations. Employment in the agricultural sector has implications for increasing income, employment, and income distribution. The more limited agricultural land, while the workforce in rural areas continues to increase, then job opportunities outside the agricultural sector such as services, trade, and industry are becoming increasingly important as a source of income for rural households. For this reason, seeing this

phenomenon, the opportunity to develop the village is wide open.

In achieving the objectives of community-based tourism development, also to think about how to make the tourist attraction become a sustainable tourism area, we must consider the protection pattern of the local community. It starts with protection on wages in the tourist attractions area. Do not let the local community not benefit from the development of rural areas. The legal protection, especially regarding their right to work, is regulated per Article 19 paragraph (2) of Law number 10 of 2009 on Tourism [2]. In that article, it is stated that every person and/or community in and around tourist destinations has priority rights to become laborers or workers; participate in the management of tourist attractions.

The implementation of this legal protection, of course, when it is related to welfare, cannot be separated from the problem of wages. A good wage system will certainly create harmonious industrial relations in which each party performs its respective functions well. However, the problem occurs that wage protection in this location has not been implemented. One of the biggest reasons is the absence of underlying rules regarding wages in community-based tourism. The wage pattern that exists in community-based tourist attractions has not yet been regulated by law. When linked with Law No. 13 of 2003 Concerning Manpower [3] and Government Regulation No. 78 Concerning Manpower Wages [4], it turns out that these rules have not fully protected community-based workers, especially

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in the aspect of wages. If management is included in the protection of local workers and it is not based on strong basic rules, the community will be not interested, and in the future, they will be used by people who come from outside the community.

In connection with this problem, the researchers took the research location in Kulon Progo Regency in the Special Region of Yogyakarta. One of the programs that were carried out is the Bedah Menoreh area development program. In the area, there are several tourist attractions that are already running, such as the Sermo Reservoir Tourist Attraction, Kalibiru, Kiskendo Cave, Nglinggo Tea Plantation, and Puncak Suroloyo tourist attractions. All existing tourism attractions are implemented with a community-based tourism pattern. The development of the area is intended so that the existing tourism attraction is more advanced and developed.

However, before further development which can add more benefits, the planting of a strong foundation for the existing tourist attraction local workers, especially in the field of wages for their workers, is mandatory. When drawn more broadly, it means that the problem of wages for community-based tourism workers does not occur only in Kulon Progo but can occur throughout Indonesia. It is because the big plan from the central government will make this community-based tourism in at least 8000 villages in Indonesia.

This research will look at the extent of legal protection in the wage sector for community-based tourism workers. It should be following the theory above that this wage will follow marginal productivity. So that the fulfillment of wage protection in the concept of community-based tourism can be guaranteed because it can adjust to the situation and conditions of the location/place of business. But on the other hand, in the law, wages should be the right of workers who are paid according to a work agreement. So it is necessary to find the right pattern to protect these community-based workers. This research is expected to provide new scientific insights regarding the wage patterns mechanism for community-based tourism workers.

MATERIAL AND METHOD

The Neo-Classical theory states that workers earn wages equal to the increase in their marginal output. The wage here functions as a

reward for the work effort that a person gives to the entrepreneur. Wages are paid by employers following the work effort (productivity) provided by labor, meaning that in this theory, it can be seen that the Neo-Classical theory is based on the value-added principle of production factors, where the wage is a reward for the added value of production received by entrepreneurs from their employees.

Neo-Classical Theory considers that wages are flexible enough in the labor market so that the demand for labor is always balanced with the supply of labor, and there is no possibility of unemployment. It means everyone that is willing to work at that wage level will get the job. Basically, those who are unemployed are only those who are not willing to work at the prevailing wage rate. So they are voluntarily unemployed. However, in the definition of wages according to Article 1 of Law Number 13 of 2003 concerning Manpower, wages are workers' rights received and expressed in the form of money as compensation from employers or employers to workers who are determined and paid according to an employment agreement, agreement, or laws and regulations, including allowances for workers and their families for a job and/or service that has been or will be performed. These two legal theories will be used as the basis for researchers to analyze.

In accordance with the problems studied, this study is an empirical normative legal research. Normative legal research includes research on legal principles, legal systematics, and legal synchronization [5]. Secondary data is obtained through literature research in the form of laws and regulations on wages as stipulated in Law No. 13 of 2003 concerning Manpower and Government Regulation No. 78 of 2015 concerning Wages as well as books and articles on wages. Meanwhile, primary data is obtained through field research by visiting the tourist attraction. Methods of data collection using an In-Depth Interview and documentation study. Selection of respondents using a purposive sampling technique.

Data collection

The writer chooses a purposive sampling technique that determines considerations or criteria that must be met by the samples used in this study. The respondents in this research are firstly business actors (include owners of restaurants, restaurants, food stalls, guides, car rentals, motorcycle taxi drivers) and others

deemed necessary, as well as managers of tourism-conscious groups. The data were taken by observation and direct interview. Secondly, tourism workers affected by the Bedah Menoreh Pathway program. These workers are workers that work in tourist attractions, especially in community-based tourist attractions. The researchers also seek information by conducting interviews with sources. Resource persons are parties who are not directly involved in the problems raised and studied in the research but are considered competent and have knowledge or expertise related to the problems under study. The selected sources included elements of local government, community leaders, and observers of village tourism. Then the data obtained are analyzed using descriptive qualitative analysis.

By outlining the laws and regulations on wages that have been collected and linking them to the field data that has been obtained, then the systematization of the data is carried out. The data systemization is carried out according to a time sequence in the form of a certain periodization, namely when the concept of community-based tourist attraction is applied and what the ideal pattern should look like in the future.

RESULT AND DISCUSSION

CBT in Bedah Menoreh Pathways Program

Bedah Menoreh Pathways Program is one of the main programs for 2020, which is part of the Regional Medium-Term Development Plan (RPJMD) 2017-2022 in Kulon Progo. Bedah Menoreh Pathways connects Yogyakarta International Airport (YIA) with Borobudur. Bedah Menoreh existed before YIA, was intended to revive the economy in the Menoreh Hills area, which so far tends to be underdeveloped. Four sub-districts have undergone the Bedah Menoreh program. Starting from Kokap, Kalibawang, Girimulyo, and Samigaluh Districts, geographically, access is still lacking. Whereas in that location there is a lot of potentials, one of which is tourism potential. The district government does not want the area to be stagnant and undeveloped. Then they triggered to develop community-based tourism as a program that was deemed appropriate.

The current concept of community-based tourism is one of the alternatives to develop the tourism sector. In theory, community-based tourism development is an important and meaningful program, but what happens in the field, the situation and conditions are different.

Some conditions that occurred in the community are driving factors for the development of community-based tourism and some situations can even cause the loss of this tourist attraction. Concerning the problem that the author studied, the author tries to explore the factors that cause the absence of legal protection from this CBT worker. In this study, a worker is any person who works by receiving wages or other forms of remuneration. Workers are people who do not have business capital, what they have are energy and skills. Therefore, workers are often in a weak position when dealing with employers [6]. However, because of the limitations of the research, the conditions to be studied only cover the problem of wages.

Wages Problems

The wage problem also occurs in community-based tourist destinations (*Daerah Tujuan Wisata* - DTWs) that the author met in the field. There are still wages that are far from the applicable minimum wage. The minimum wage for Kulon Progo Regency in 2019 is IDR 1,613,200. However, the wages received by many workers are below the existing minimum wages.

Wages are one element of a very important employment relationship, the macro function of wages can be studied from a constitutional, social and economic perspective, while on micro level wages can function to improve worker welfare, attract and retain quality workers, prepare company budgets and increase productivity [7]. Based on an interview with the Sermo Reservoir Tourism Awareness Group in 2020, Mr. RS as the manager of the tourist attraction, explained a problem with wages that have been discussed with workers. The amount of wages is still below the Regency Minimum Wage (RMW) because the existing income increases only on weekends, so the daily income is uncertain. It was getting worse with the Pandemic Covid19 situation. The same thing also happened in Kiskendo Cave. The workers had not been paid according to the stipulations due to uncertain income and limited funds. However, in another case, it turned out that something was different in the Suroloyo area. Tourism revenue from tickets in Suroloyo is managed by the local government. Thus, the doorman is getting paid by the local government. Meanwhile, the Tourism Awareness Group is currently developing places to eat and parking areas, so the income is still modest.

The second problem is wages in some tourist attractions were considered too high from the RMW, without paying attention to the continuity of the work being done. According to the researchers' point of view, it is not a good thing because without clear standards, later when visitors start to decrease or there is no development of tourist attractions anymore, workers who were used to get high wages will experience social problems. For example, some workers in Kalibiru earn IDR 2 million per month, some IDR 3 million per month depending on their job. Besides, the Tourism Awareness Group also provides IDR 300 thousand per month per head of family around Kalibiru. Apart from that, the Nglingga Tea Garden is similar. Workers are paid by managers. Both parking fees and guides have exceeded the Regency Minimum Wage in Kulon Progo Regency. At this moment, the presence of donation or retribution from the tourist previously is mainly used for wages. However, if the wages regulation and system is already working then the previous donation or retribution by the tourist could be used as source of funding for conservation [8]. As a result of the Pandemic Covid19 in 2020, Kalibiru tourist attractions must cut off some of their workers' wages. Some of the workers are even being layoffs.

The last problem that the researcher found is the problem of not recognizing workers' benefits. According to Mr. TK from the Tourism Office, the average tourist attraction along Menoreh Hills was that the wages paid only once, possibly monthly, and could be according to a certain time. Usually, the wages received are in full, and there is no such thing as allowances.

The Legal Protection and Obstacles

The high level of the workforce and the lack of employment in Indonesia, and frequent layoffs in various companies have made people choose to work in the informal sector either as entrepreneurs or workers. It is getting worse because of the Pandemic, and until this research being done, the tourism situation is still uncertain. However, by starting to develop community-based tourism, it provides a glimmer of hope for prospective workers where they don't have to leave their area to work. It is enough for them to rely on what is owned by the local community to become an attraction that can increase capacity so that it will bring money for them.

However, it turned out that the existing wages were still not what was expected. In theory, statutory regulations are based on Government Regulation No. 78/2015 concerning wages, and with these regulations, it is hoped that it can overcome wage problems in Indonesia. However, it turns out that the reality in the field is the issuance of this statutory regulation itself raises many pros and cons among employers and workers. Of course, this becomes an obstacle in the development of this community-based tourist attraction. It is still contrary to the aims and objectives of legal protection. Legal protection purposes are protecting human rights that have been harmed by other people, and this protection is given to the community so that they can enjoy all the rights provided by law. In other words, legal protection is a variety of legal measures that must be provided by law enforcement officials to provide a sense of security, both physically and mentally, from disturbances and various threats from any party [9].

The obstacle from human resources is generally due to the low level of education of the workforce, especially since Kulon Progo Regency is included in the category of the population less educated. The second obstacle is the lack of willingness from its human resources. To make ends meet, workers will usually put aside the rights that should be obtained to get a full wage. The lack of knowledge of workers about laws and regulations that protect workers themselves also affect how they take a stand. On the other hand, they are required to meet the needs of their families, which often rely solely on them to support themselves.

The second obstacle comes from the party managing the tourist attraction itself. Until now, the manager has not paid much attention to matters that have an unfavorable effect on the manager and the sustainability of the tourist attraction itself. Managers must also be given the same understanding because they may also not know. It can be seen that managers usually tend not to discuss matters that are the rights of workers but are more inclined to demand the fulfillment of their obligations. For example, the workers right for health insurance and regular working hours.

The third inhibiting factor in the implementation of legal protection for community-based tourism attraction workers in Menoreh is institutional factors. In implementing legal protection for workers, a manager of a

tourist attraction indeed often does not escape the obstacles they experience. The institutional factor will inevitably become an obstacle if it is not seen and examined seriously because this requires thoroughness and overall agreement between communities. The findings from the research locations are that in 2018 alone, there has not been a strong legal entity that runs in each community-based tourist attraction.

Government Wage Policies

Funds are often becoming a problem in managing CBT attractions. This funding problem is a classic problem that all regions have experienced. First, it can be seen from the side that the income is still insufficient so that they were not able to meet the funding needs of the tourist attraction. Second, the existing funding system has not been implemented according to sound funding principles, so the results will remain minus.

On the other hand, the role of the government in developing community-based tourist attractions is very important. Strategies that can be done include strengthening the community around the destination. The role of communities in tourism development depends on the extent to which they have the opportunity and strength [10]. The government plays a role in ensuring that communities have access, control, opportunity, and strength in tourism development through regulation. Regulation is an attempt by the government that has the authority to regulate certain activities within its juridical area, which have an impact on increasing access, control, opportunity, and community strength. The government can impose certain rules that dictate other parties to support or implement government policies in community empowerment. Concerning the development of CBT, regulation is a tool for the government to ensure that tourism stakeholders continue to behave in the corridors of established tourism policies or comply with the provisions set by the government [11]. With the high role of the government, the sustainability and success of community-based tourism attractions should be more guaranteed, including the implementation of the wage concept.

One of the government wage policies that often creates conflicts in its determination is related to the determination of the Minimum Wage in the Provincial Minimum Wage; District/City Minimum Wages and Provincial Sectoral Minimum Wages and District Sectoral Minimum

Wages. The Minimum Wage Policy is a government instrument to improve worker welfare, which is not always in line with the primary objective of creating national welfares. Considering that the minimum wage in practical reality is often an obstacle for companies absorbing all the available labor force in the labor market [12].

Concerning wages for community-based tourism workers following the previous discussion, there are already legal regulations regarding the minimum wage. If there is a working relationship between community-based tourism attraction managers and workers, this Manpower Act applies. An employment relationship is a relationship between an entrepreneur and a worker/laborer based on a work agreement, which has elements of work, wages, and orders (Article 1 point 15 of the Manpower Law). If the relationship between a tourist destination entrepreneur and a worker is based on an agreement that promises a job description of the worker, the wages to be received, and an order from the employer, then there is indeed an employment relationship and is subject to the Manpower Act. In this law, entrepreneurs are prohibited from paying wages lower than the minimum wage, either the minimum wage based on the province or city district (Provincial Minimum Wage) or the minimum wage based on the sector in the province or district/city (Sectoral Minimum Wage). Such is what is regulated in Article 90 paragraph (1) jo. Article 89 paragraph (1) of the Labor Law [3].

However, based on the reality that occurs in the field, there are still some tourist attraction managers who have not been able to pay their workers' wages according to the applicable minimum wage regulations. Even though the lack of visitors or the absence of income at the DTW, which reduces the management's income, actually does not automatically become an excuse to deviate from the provision of the minimum wage. As long as the wages have been agreed in the work agreement, the manager is obliged to pay the workers' wages according to the minimum wage.

A New Wage Mechanism

So, according to the researcher, if you want to apply the principles of justice and benefit both for managers and for workers, of course, a new wage mechanism must be made for this community-based tourism worker. If this is

carried out according to the rules above, a lot of community-based tourism attraction managers will violate it. For this reason, things that can be done, for example, make a special sectoral minimum wage that is a *lex specialist*. Management of tourist attractions in a corporate manner is not a business that starts with large capital. Of course, this will be a problem for tourist attractions that still cannot be independent. So, if it can be reviewed, the determination of Decent Living Needs for community-based tourism workers is different from workers in general. So that, for example, the transport component does not exist, then they work in their home area so that the rental transport component was not needed. Thus, a more in-depth study was needed for these community-based workers for a decent life. As an application of the challenges ahead, the current era of technology, the legal protection for community-based tourism workers can also adopt the technology by creating a system of working relations between employers and workers. The system is supervised and monitored by the government so that the implementation witnesses for those who violate can be more assertive and effective.

This system is an online system where companies, workers, and the government can access it. If the worker gets a job, the company is obliged to register in the system. Workers and the government can also monitor this worker's registration. The advantage of this system is that what happens on the ground when there is a violation, the government can immediately take action. On the worker's side, they can monitor what is right so that they can carry out their work optimally. From the entrepreneur's side, it is easier because legally, if they have filled in and done what should have been stated in the system, they have also done what is ordered by laws and regulations.

CONCLUSION

The legal protection for tourism-based communication workers at the research location, especially in the wage sector at the research location, is still very minimal and has not been implemented following statutory regulations. It is evidenced by the discovery of data on factors that hinder the implementation of wage protection for community-based tourism workers both at the research location.

Analysis of external factors found that laws and regulations do not explicitly regulate wages

for CBT workers. Furthermore, in terms of internal factors, the current wage system is not in accordance with Government Regulation 78/2015. Some wages are indeed above the district minimum wage, and some are not following the applicable minimum wage due to knowledge and management factors that have not gone well.

It is strongly suggested that wage protection for community-based tourism workers needs a regulation pattern that answer all existing problems. The pattern that is expected to be a solution to the problem is first; the pattern must be made in a separate indicator that can later determine the number of wages for community-based tourism workers. Second, if the amount has been determined, a control system must be made that can be accessed by workers, employers, and the government, so that violations can be minimized and easier to monitor. The pattern compiled by the author must be based on a form of a legal rule so that it can become a strong basis for community-based tourism entrepreneurs.

Wage regulations that will be made must be sectoral separately for these community-based tourism workers. The new framework must be drawn up taking into account the customs, community proposals, the results of village deliberations and situations and conditions. The indicators in the village/community are different from the indicators for formal employment in general. It is also to assure that juridically, in the employment law, the position of employers and workers is equal.

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Ecotourism Potential in Meratus Geopark, South Kalimantan

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Abstract

Ecotourism development in Mt. Meratus, South Kalimantan, is crucial to support the future development and forest use in the South Kalimantan area. Ecotourism provides a mechanism to use forest resources sustainably while at the same time provides opportunities for local economic growth. This paper aims to describe the potential resources of Mt. Meratus to support the ecotourism program in South Kalimantan. The development of ecotourism in Mt. Meratus has been crucial since the area has a high level of geo-biodiversity and cultural resources, which are important for the future human being. Protecting and promoting indigenous knowledge of the community in the Mt. Meratus geo-site area are important to support sustainable development programs, including the development of ecotourism as one of the practices of responsible travels to the natural ecosystem.

Keywords: biodiversity conservation, geotourism, Mt. Meratus Kalimantan.

INTRODUCTION

Ecotourism recently becomes one of the significant tourism in the natural area. Ecotourism grows as a response to the increase of travelers to explore nature, especially the bio-geological phenomena of a particular area. Ecotourism has been identified as an important tourism sector to promote sites with rich biodiversity and geological features into the tourism business. Ecotourism is an educational tool to promote environmental conservation, which is crucial in preparing future generations. Ecotourism provides opportunities to employ the local community in tourism sectors. Therefore, ecotourism contributes to local economic growth [1,2].

Ecotourism is especially important in tropical developing countries, including Indonesia. The ecotourism development has been reported relevant to the environmental programs, in which funding opportunities are available to support conservation programs. Area with abundance high level of biodiversity is a potential site for ecotourism development programs [3]. Ecotourism attraction has been identified as diverse, ranging from animals to plants. Many species with endemic status and rarely found on the earth are

the most attractive object. Many people desire to visit such plants and animals in national parks or wildlife areas.

Kalimantan is one of the islands with a high biodiversity level. The biodiversity level of Kalimantan has been identified as high and contributes to global human life. The biodiversity of Kalimantan encompasses a high number of animals, plants, and microbes [4]. However, problems with the future of sustainability in Kalimantan are complicated and need a comprehensive strategy to promote proper conservation strategy. The economic aspects have been contributed to the rapid lands uses changes. Many areas with the luxurious tropical forest have been converted to settlement, mining, and palm oil cultivation. Scholars noted that sustainable natural resource use is important to ensure the sustainability of the living system in Kalimantan Island [5,6].

The recent trend in tourism argues that conserving biodiversity conservation in nature-based tourism destinations is crucial. It is especially important in numerous fragile ecosystems such as in Kalimantan. With the spectacular biodiversity level, tourism activity in Kalimantan should be able to support conservation. The challenges, however, is to describe biodiversity resources comprehensively and draw proper planning and design to facilitate tourism growth in environmentally sustainable principles [3,7]. The

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tourism activities must be given attention and taken out carefully by analyzing all the aspects regarding them so that they might not impose harmful impacts on the environment [8]. The paper aims to describe the geo-biological aspect of Mt. Meratus in South Kalimantan. This recent information is crucial for the future development of Mt. Meratus as a geo-ecotourism site.

Geological feature of South Kalimantan

Kalimantan is a unique island in the Indonesian archipelago. Compare to the nearest island in the Indonesian archipelago chains, Kalimantan has a low mountain number. Sumatra in the west of Kalimantan and Java in the south of Kalimantan has been known as the volcanic islands, means that these two islands have abundance active volcano. The Sulawesi Island in east of Kalimantan has some important active volcanoes [4].

Kalimantan has been characterized by luxurious tropical forest. It has been known that Kalimantan consists of Dipterocarpaceae forests. The luxurious

tropical rain forest of Mt. Meratus is home to numerous birds, mammals, reptiles, and insects. Mt. Meratus has known as one of the hot spots of biodiversity in southeast Kalimantan. Biodiversity provides numerous ecosystems, ranging from ecological to social services. The dependency of humans in Mt. Meratus geo-sites on the biodiversity of the mountains area was high. Peat swamp forest was common in Kalimantan [4].

The Mt. Meratus, located in South Kalimantan Province, spread from northeast to southwest of the province territory (Fig. 1). Mt. Meratus is one of the few mountains and highland ecosystems on Kalimantan Island. Compared to the other island in Indonesia, Kalimantan has few mountains. Kalimantan was dominated by lowland with wide wetlands and Dipterocarpaceae forest. However, the biodiversity of Kalimantan has been recognized high and contributes to the global conservation programs [4].

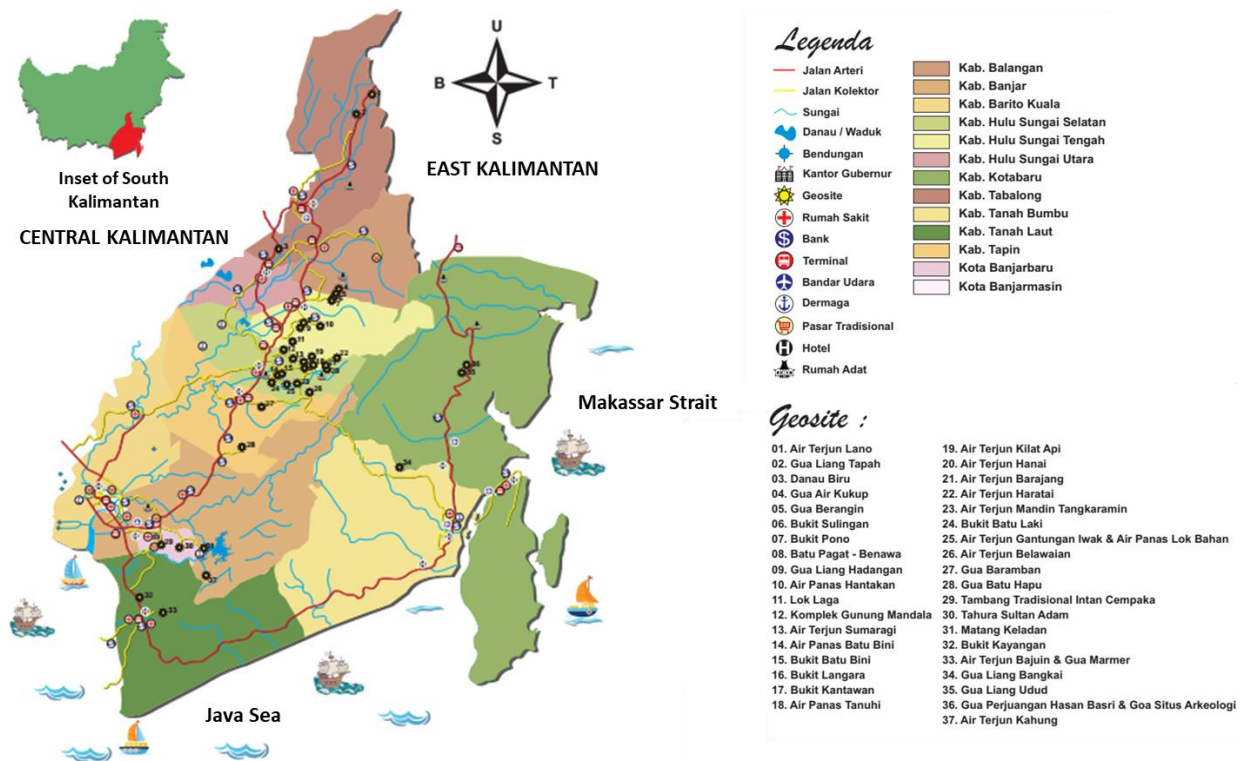


Figure 1. The geosite distribution area map, Meratus Geopark, South Kalimantan
(Source: Department of Energy and Mineral Resources of south Kalimantan province, 2019)

Geosites of the Meratus geopark system consisted of 36 sites. These sites were distributed at nine regencies and one city. The nine regency was includes Tabalong, Hulu Sungai Utara, Hulu Sungai Tengah, Hulu Sungai Selatan, Tapin, Banjar, Tanah Laut, Tanah Bumbu and Kotabaru. One city involved in the geopark system was Banjarbaru. The geo-biodiversity of Mt. Meratus is important for future human life, especially the community in Kalimantan Island. These lead to the declaration of Mt. Meratus as a national geopark [9].

Geopark is the global program initiated by UNESCO to promote natural park areas with the important geological aspect designed to meet educational objectives to support environmental conservation, local community development, and local economic growth. The development of geo-tourism is relevant to Agenda 21. Agenda 21 is concerned with the issues of education, public awareness, training, and human capacity development to support Convention 1972 about the protection of global heritage.

Biodiversity of Mt. Meratus

There are numerous research has been conducted to describes the biodiversity of Mt. Meratus. Scholars point out that the Meratus ecosystem has a high level of plant and animals species. Mt. Meratus is a habitat for numerous mammals and birds species. The diversity and abundance of plants in Meratus is potential habitat for birds. The Meratus ecosystem, therefore crucial for biodiversity conservations.

Within the Mt. Meratus geo-sites area, there are endemic species called *Nasalis larvatus*, the Proboscis monkey. This long-nose monkey was distributed at South Kalimantan and classified as old group monkeys. Compared to other monkeys, this species shows unusually long or long noses. The species lives in a group and shows social behaviour. This morphological characteristic was attractive for tourists. This species is categorized as endangered species by IUCN and listed in Appendix 1 by CITES [10].

The high level of biodiversity in Mt. Meratus also comes from the high level of biodiversity in local community settlements. The crucial ecosystem with high-level biodiversity includes home gardens and community gardens in the settlement area. In Kalimantan, traditional home gardens are plot with a high level of plants species,

especially species with economic functions. Many home gardens have a long history of establishment. Some gardens have been managed for more than 50 years, lead to the tall, and big tree exists in traditional home gardens.

Threats to the biodiversity of Mt. Meratus, however, related to anthropogenic factors. The high biodiversity value of Mt. Meratus is an interesting resources that leads to intensive human disturbance, including illegal hunting and plant harvesting. Poor and lack of awareness among the community surrounding Mt. Meratus leads to the rapid forest degradation in Mt. Meratus. Therefore, it is crucial to increase human prosperity in Mt. Meratus. Education is a crucial component.

The recent increase in global climates is a crucial threat to Mt. Meratus ecosystems. Global warming has been identified as a responsible aspect of biodiversity disturbance, including in Mt. Meratus. As far, the comprehensive studies related to the impact of global warming on the Mt. Meratus ecosystem are not available. These lead to the crucial action for the mitigation strategy in the Mt. Meratus ecosystem.

Indigenous knowledge

The local dweller of Meratus has been identified as rich in terms of traditional knowledge. Traditional knowledge is important in supporting environmental programs. Traditional knowledge practices have been identified as one of the practices of the sustainable practice of natural resource use. In Indonesia, it is found in many communities and implemented in many aspects of the human living system [11-13].

The community in Mt. Meratus consists of indigenous tribes, namely Dayaknese and Banjarese. Socio-culturally, these tribes shows the different culture and living system. Both tribes, however, are rich in terms of traditional practices in the living system. The indigenous knowledge of Banjarese and Dayaknese was intensively studied and shows that these tribes are rich in terms of traditional knowledge. Dayak has been known as a main native community to Kalimantan Island, with clan distribution were found in many areas in Kalimantan Island. Dayaks still practicing traditional knowledge in local wisdom in farming activity, natural resources collected from the forest, and daily life in the tribal community. The agroforestry with numerous plant trees species in the

traditional garden ecosystem is one of the sustainable ecosystems in the Dayak community [4, 14,15].

The local community in the Mt. Meratus ecosystem has rich indigenous knowledge, which is important to enhance sustainable development programs. Royyani points out that local dwellers in the Mts. Meratus still implement traditional knowledge in term of biodiversity resources usages [16]. It was known as *Tepung Tawar*. *Tepung Tawar* is one of the traditional plant usage for numerous purposes, ranging from traditional healing, agricultural ceremony, and other human activity.

Sunarbadi and Kartikawati point out the relationship among local people in the Mt. Meratus and plant diversity in Mt. Meratus ecosystem [17]. The local community in Mt. Meratus use plant diversity into 15 categories, ranging from food, medical plant, and other usages. Sunarbadi and Kartikawati stated that some species have high priority for conservation, including *Durio kutejensis*, *Nepheliun mutabile*, *Baccaurea duilcis*, *Mangifera caesia*, *Mangifera foetida*, *Dacryodes rostrata*, *Salacca glauca*, and *Dracontomelon costatum* [17]. These species are important to support human life in Mt. Meratus.

The Development of Ecotourism

The development of ecotourism in Mt. Meratus is relevant to the recent growth of tourism in the natural area, including ecotourism. Global tourism trend shows that visit natural area is the significant tourism sector, in which many countries with abundant natural resources has opportunities become the main destination for ecotourism area. The increase of tourist appreciation towards nature and culture are the factors that contribute to the rapid growth of tourism in the natural area.

The development of ecotourism in Mt. Meratus is relevant with the conservation programs to support the sustainable uses of natural resources in Mt. Meratus, including sustainable uses of biological resources. Ecotourism in Mt. Meratus offers opportunities for local economic development through the active participation of the local community in the tourism business. There are numerous potential economic benefits for the development of tourism in Mt. Meratus.

The development of tourism in Mt. Meratus is also significant to support biodiversity conservation. Ecotourism argues that biodiversity

and ecosystem are crucial resources for tourism success, and therefore conserving biodiversity is crucial. Biodiversity is the main attraction for ecotourism, in which western tourists visit the tropical forest to enjoy tropical biodiversity. It has been known that tropical forest diversity is unique and has scientific value. It is becoming an interesting ecotourism object.

The development of ecotourism in Mt. Meratus requires community participation, which is crucial in ecotourism. Scholars point out that the active participation of the local community is the key to the success of ecotourism [1,2,7]. There are numerous potentials stakeholders in the development of Mt. Meratus, including travel companies, academicians and politicians, local governments, private sectors, environmentalists, local developers, and the local community. Stakeholders have numerous perspectives and interests. Therefore, it is crucial to accommodate stakeholders' interest in the comprehensive planning of ecotourism in Mt. Meratus. The involvement of stakeholders in the development of Mt. Meratus is crucial.

CONCLUSION

The diversity of living creatures, the abundance of outstanding geological landscapes, and rich cultural resources were the potential value of Kalimantan to be an attractive nature-based tourism destination. The ecotourism development in Mt. Meratus is crucial to support biodiversity conservation in the mountain area with high biodiversity. The development of ecotourism in Mt. Meratus is crucial to support local economic growth. It is crucial for the involvement of traditional knowledge of the community in Mt. Meratus in ecosystem management and sustainable uses, including ecotourism.

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FOCUS AND SCOPE

Competitiveness of destinations, products and Indonesian tourism business; Diversification of tourism products; Incentive system of business and investment in tourism; Information, promotion and communication in tourism; Tourism supporting infrastructure; Security and convenience in tourism; Tourism policy; Unique tourism community life (living culture); Local knowledge, traditions, and cultural diversity; Diversity and attractions in ecotourism; Diversity of natural attractions in ecotourism; Pluralistic diversity of ecotourism society; Diversity of ecotourism activities; Hospitality of the local resident; The quality of tourism services; Quality of HR in tourism (Standard, accreditation and competence certification); The market share of tourism and integrated marketing system; Package of tourism attraction; Development of tourism regions; Community based Eco-Tourism.

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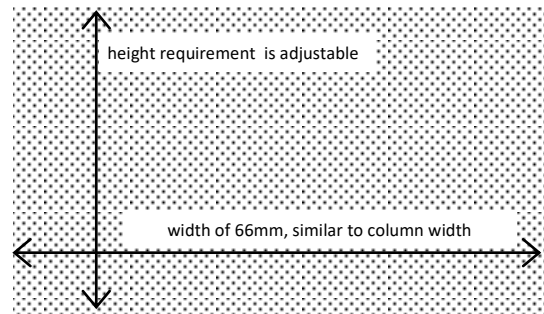


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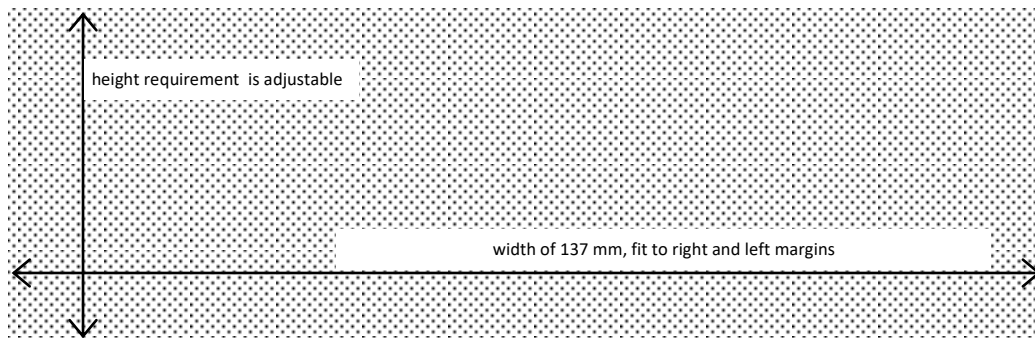


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